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Dairy

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The present forecasts will be updated if needed in the World Agricultural Supply and Demand Estimates scheduled for release on July 11, August 13, and September 13, 1984.

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Summary

Commercial disappearance of all milk and dairy products remains strong, as it has been since fourth-quarter 1983. Preliminary data indicate that use during January-April was up 2.7 billion pounds (milk-equivalent, fat-solids) from a year earlier—6 percent on a daily average basis. Even if no additional gains in use were posted for the rest of 1984, commercial disappearance for the year would be about 2 percent above last year. However, additional gains seem likely, for several reasons:

- the improved price position of dairy relative to other food,
- larger real per capita incomes,
- additional population, and
- the national program to promote dairy products.

On balance, use for 1984 is anticipated to be up 2 to 4 percent.

Since November 1983, the average number of milk cows on farms has been lower each month than the previous month. During May, cow numbers averaged 10.851 million, 319,000 head (2.9 percent) below last November. While the rate of the decline has slowed since last February, some additional drop each month still seems likely.

Milk output per cow in 1984 is expected to be unchanged to down 1 percent. During January-May, daily output per cow average 0.4 percent less than a year earlier, because of concentrate feeding reductions and other management changes. On April 1, concentrate feeding per cow was 3 percent below a year earlier. Given these factors, calendar 1984 milk production is projected to be 2.5 to 4.5 percent below 1983.

Milk prices received by farmers in May were below a year earlier, because of the lower support price and the continued surplus supplies. However, with the spring flush period completed and supply and demand in better balance, some price strength is expected.

The improvement in the supply/use balance for milk has already strengthened wholesale butter prices, and cheese prices should increase this summer. Nonfat dry milk prices may also move up late this year. The Bureau of Labor Statistics (BLS) wholesale price index for all dairy products is expected to more above a year earlier by late fall. For all of 1984, the wholesale index will likely average 0.5 percent lower to 1 percent higher than last year.

In April, the BLS retail index for all dairy products stood at 251.5 (1967=100), up 0.6 percent from April 1983. During January-April, the retail dairy index averaged 0.5 percent higher. In contrast, the all-food index gained 4 percent during the same period. For the year, retail dairy prices are likely to be up 0.5 to 2 percent, while all food prices are expected to rise 4 to 7 percent.

During January-May, USDA net removals under the milk price support program equaled 6.4 billion pounds of milk (delivery basis), down 3.2 billion or 34 percent from a year earlier. With milk production down and commercial disappearance up, removals are expected to be below a year earlier for the rest of 1984.

Table 1.—U.S. dairy situation at a glance

Item	Unit or base period	Quarterly data					
		1st 1982	1st 1983	2nd 1983	3rd 1983	4th 1983	1st 1984
Production and cow numbers:							
Total milk	Mil. lb	33,246	34,247	36,881	35,015	33,825	34,136
Milk per cow	Lb	3,016	3,091	3,321	3,145	3,031	3,112
Number of milk cows	Thou.	11,024	11,079	11,106	11,135	11,158	10,971
Prices received by farmers:							
All milk, sold to plants, 100 pounds	Dol	13.83	13.77	13.37	13.33	13.80	13.40
Percentage of parity[1]	Pct	66	62	63	61	60	57
Manufacturing grade milk, 100 pounds	Dol	12.83	12.80	12.53	12.33	12.87	12.40
Parity equivalent	Dol	18.68	19.78	20.02	20.11	20.26	21.17
Fat content	Pct	3.77	3.75	3.62	3.53	3.85	3.78
Minnesota-Wisconsin (3.5% fat), 100 pounds	Dol	12.49	12.58	12.51	12.49	12.40	12.06
Milk eligible for fluid market, 100 pounds	Dol	13.97	13.93	13.50	13.47	13.97	13.57
Price ratio and dairy ration value:							
Milk/16-percent feed price relationship	Lb	1.54	1.57	1.46	1.41	1.36	1.34
Value of concentrate ration fed, milk cows	Dol	7.60	7.28	7.46	7.81	8.30	8.58
Farm cash receipts from dairy products	Mil. dol	4,570	4,632	4,828	4,621	4,493	4,581
Production of factory products:							
Butter	Mil. lb	366.6	381.9	348.4	260.7	308.2	350.2
American cheese, whole milk	Mil. lb	662.1	717.2	834.2	698.9	677.3	700.0
Cheese other than American	Mil. lb	411.9	452.1	462.9	457.5	518.3	469.4
Canned milk, unskimmed	Mil. lb	173.7	161.1	189.3	167.2	176.6	144.6
Dry whole milk	Mil. lb	26.2	26.8	27.4	26.4	30.6	30.9
Frozen products[2]	Mil. gal	249.6	264.4	340.6	366.4	250.1	271.1
Creamed cottage cheese	Mil. lb	188.2	181.5	192.0	196.1	172.7	182.1
Total (milk-equivalent, fat-solids basis)[3]	Mil. lb	19,532	20,783	22,727	20,180	18,920	19,967
Nonfat dry milk, human use	Mil. lb	347.2	369.0	446.9	370.8	313.2	326.1
Wholesale prices:							
Butter, Grade A, Chicago, pound	Ct	147.6	147.2	147.3	148.7	146.0	141.3
Cheese, American (40-pound blocks), f.o.b. Wisconsin assembling points, pound	Ct	137.7	138.6	137.5	137.7	139.4	135.7
Evaporated milk, case	Dol	21.99	22.16	22.23	22.23	22.23	22.23
Nonfat dry milk, pound, f.o.b. Central States, high heat	Ct	93.3	93.4	93.4	93.4	92.6	90.7
Dairy products (BLS)	1967=100	247.9	250.8	250.8	250.5	250.5	248.7
Retail prices (BLS):							
Consumer price index[4]	1967=100	293.2	293.2	296.9	300.5	303.1	306.4
All food[4]	1967=100	282.4	289.2	292.1	292.3	293.1	301.2
All dairy products[4]	1967=100	246.3	249.6	250.1	250.1	250.1	250.8
Fluid milk and cream	12/77=100	135.3	136.7	136.5	136.3	135.9	136.5
Whole milk	1967=100	221.5	223.5	223.2	222.9	222.1	223.0
Other	12/77=100	135.3	137.3	136.8	136.5	136.4	137.2
Manufactured dairy products	12/77=100	144.7	147.2	148.3	148.5	149.1	149.3
Butter	1967=100	249.4	253.5	253.7	253.8	255.0	254.2
Cheese	12/77=100	142.7	145.4	146.3	146.7	146.6	146.7
Frozen desserts	12/77=100	150.1	152.1	153.2	152.8	154.7	155.2
Other	12/77=100	139.3	142.4	144.1	145.5	145.6	146.4
Margarine	1967=100	257.1	257.0	258.7	258.7	269.1	279.6
Stocks, end of quarter:							
Creamery butter	Mil. lb	429.2	466.8	529.0	589.6	552.3	499.4
Cheese total[5]	Mil. lb	975.8	1,064.2	1,160.4	1,213.3	1,314.7	1,266.4
Canned milk, unskimmed	Mil. lb	46.8	52.9	49.1	76.7	94.9	47.7
Dry whole milk	Mil. lb	6.0	6.0	5.0	5.8	4.4	6.4
Total (milk-equivalent, fat-solids basis)[6]	Mil. lb	18,377	20,054	22,220	24,017	24,294	22,646
Nonfat dry milk	Mil. lb	889.7	1,282.0	1,305.7	1,401.4	1,419.1	1,394.9
Commercial disappearance:							
Creamery butter	Mil. lb	211.4	209.5	198.6	217.0	256.6	206.9
Cheese, American	Mil. lb	541.3	466.9	570.7	500.2	545.4	557.6
Cheese, other than American	Mil. lb	462.9	494.6	508.3	521.1	609.4	527.4
Canned milk, unskimmed	Mil. lb	170.6	160.8	159.0	144.5	221.4	134.7
Milk in all products	Mil. lb	28,665	28,064	30,929	32,044	31,753	29,684
Nonfat dry milk	Mil. lb	105.0	109.6	106.4	122.4	121.6	137.0
USDA net removals:							
Butter	Mil. lb	164.1	172.5	148.9	44.3	47.5	136.6
Cheddar cheese	Mil. lb	127.9	209.7	272.2	221.4	129.5	150.6
Nonfat dry milk	Mil. lb	235.0	271.6	331.4	270.3	187.7	205.3
Evaporated milk	Mil. lb	3.9	5.3	5.0	6.8	7.5	7.6
Total (milk-equivalent, fat-solids basis)	Mil. lb	4,660	5,645	5,776	3,117	2,275	4,325

[1]Seasonally adjusted prices as percentage of parity price. [2]Ice cream, ice milk, and sherbet. [3]Includes manufactured products for which current data are available. [4]For all urban consumers starting January 1978. [5]Natural plus processed American cheese held by CCC. [6]Excludes cream and bulk condensed milk.

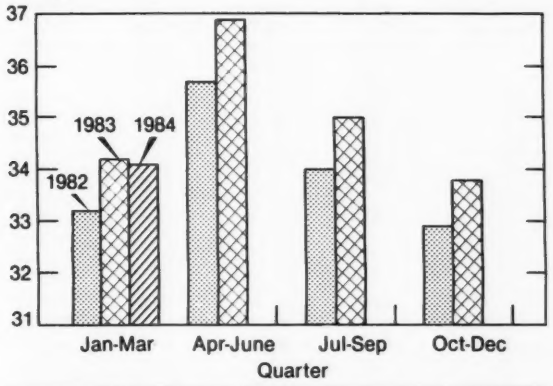
PRODUCTION

Contraction Continues

Milk production during March-May was 2.6 percent below a year earlier, with May down 2.8 percent. May was the fifth month of the 15-month milk diversion program and the fourth consecutive month of year-over-year declines, including February on a daily average basis. The drop during the month was the result of 2.3 percent fewer cows and a 0.5-percent decrease in output per cow. During January-May, milk production adjusted for leap year was down 1.1 billion pounds, or nearly 2 percent.

Of the 33 States surveyed during May, only California, the Nation's second leading milk-producing State, posted a gain—up 4.7 percent from a year earlier. Milk production in Wisconsin, the number-one producer, fell 0.6 percent. Third-ranking New York dropped output 0.9 percent, while Minnesota (fourth), Pennsylvania (fifth), and Michigan (sixth), lowered production 8.0, 0.8, and 2.9 percent, respectively.

U.S. Milk Production by Quarters, 1982 to 1984



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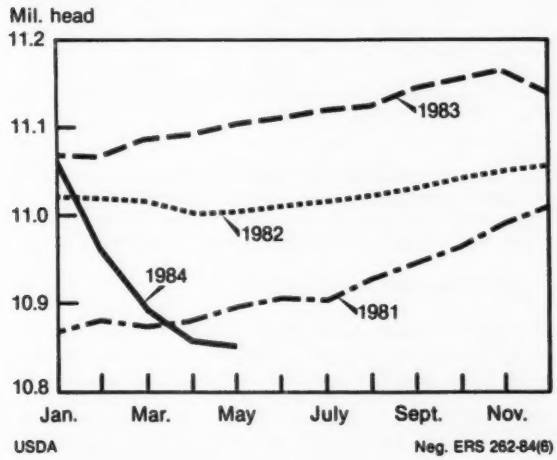
Milk Cows on Farms



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Feed Prices Remain Relatively High

The average price paid by farmers for 16-percent protein dairy feed remains well above a year ago, although prices have weakened since last fall. Mid-May prices averaged $197 per ton, down $8 (4 percent) from November 1983, but still $13 (7 percent) above a year earlier. With milk prices declining relatively more than feed prices, the dairy farmer in May was able to buy only 131 pounds of grain for each cwt of milk sold—a drop of 5 pounds (3.7 percent) since November and 14 pounds (9.7 percent) from a year earlier. The milk/feed price relationship is expected to decline slightly for the next month or two. The ratio will then improve substantially, likely moving above year-earlier levels late this summer because of lower feed prices and higher milk prices.

June 1 stocks of corn were 2.1 billion bushels, the lowest since 1976 and in sharp contrast with a year earlier when stocks were 4.9 billion. The tight corn supplies will probably keep prices strong into early summer. But a decline is expected during July-September in anticipation of a large harvest. The 1984/85 corn crop is projected at about 7.9 billion bushels. Use is expected to be about 700 million less than production; thus, stocks will be larger and prices should be lower in 1984/85.

Soybean stocks are relatively tight following last year's reduced crop. Continued price strength is expected to limit use until harvest. The 1984 crop is projected to total about 2.1 billion bushels and to be somewhat larger than use, allowing about 100 million to be added to carryover stocks. During 1984/85, soybean meal prices are expected to be below year-earlier levels.

Carryover stocks of hay on May 1 were 20.6 million tons—the lowest since 1977. The lower level was caused by the 1983 drought and by additional hay feeding last winter. Farm prices for hay averaged $76.20 a ton in 1983/84 (May-April), up more than $7 (10 percent) from a year earlier. Farmers have indicated intentions to harvest 2 million more acres in 1984. With a normal yield and reduced use, carryover stocks on May 1, 1985, are expected to be 3 million tons larger, so prices should be lower. Mid-May prices for all hay averaged $84.90 a ton, up $1 (1.2 percent) from 1983.

Milk Production Declines Expected To Continue

During May, cow numbers averaged 10.851 million, 319,000 head (2.9 percent) below November 1983. Since November, the number of milk cows on farms has declined an average of about 55,000 head each month. But the rate of the drop has slowed since February, with May down only 5,000 head from April. For the rest of 1984, some additional decline each month seems likely.

Participants in the paid diversion program indicated that during June-December they would cull an average of about 15,000 more cows per month than normal. In addition, many dairy farmers—whether in the program or not—may cull their herds intensively because of the current reduced effective milk prices and high feed costs,

Table 2.—Milk production, milk per cow, and milk cows on farms, by months, 1981-84, with comparisons

Item	1981	1982	1983	1984[1]	Change from year earlier			
					1981	1982	1983	1984
	Million pounds				*Percent*			
Milk production[2]								
January	10,805	11,121	11,473	11,490	+4.7	+2.9	+3.2	+0.1
February	10,161	10,394	10,725	10,905	+1.9	+2.3	+3.2	+1.7
March	11,549	11,731	12,049	11,741	+5.5	+1.6	+2.7	−2.6
April	11,555	[3]11,654	11,966	11,674	+4.8	+0.9	+2.7	−2.4
May	12,099	[3]12,241	12,642	12,283	+3.4	+1.2	+3.3	−2.8
June	11,606	[3]11,830	12,273		+2.4	+1.9	+3.7	
July	11,387	[3]11,633	12,061		+2.8	+2.2	+3.7	
August	11,132	[3]11,375	11,692		+3.1	+2.2	+2.8	
September	10,659	[3]10,954	11,262		+3.0	+2.8	+2.8	
October	10,768	[3]11,066	11,430		+2.9	+2.8	+3.3	
November	10,387	[3]10,656	11,000		+3.3	+2.6	+3.2	
December	10,905	[3]11,147	11,395		+3.9	+2.2	+2.2	
Total[4]	133,013	135,802	139,968		+3.5	+2.1	+3.1	
	Pounds				*Percent*			
Milk per cow[2]								
January	994	1,008	1,036	1,039	+3.8	+1.4	+2.8	+0.3
February	934	943	969	995	+0.9	+1.0	+2.8	+2.7
March	1,062	1,065	1,086	1,078	+4.5	+0.3	+2.0	−0.7
April	1,061	[3]1,059	1,079	1,075	+3.7	−0.2	+1.9	−0.4
May	1,110	[3]1,112	1,138	1,132	+2.4	+0.2	+2.3	−0.5
June	1,064	[3]1,074	1,104		+1.3	+0.9	+2.8	
July	1,044	[3]1,055	1,084		+1.9	+1.1	+2.7	
August	1,018	[3]1,031	1,051		+2.1	+1.3	+1.9	
September	974	[3]992	1,010		+2.0	+1.8	+1.8	
October	982	[3]1,001	1,024		+1.9	+1.9	+2.3	
November	945	[3]963	985		+2.1	+1.9	+2.3	
December	990	[3]1,007	1,022		+2.5	+1.7	+1.5	
Total[4]	12,177	12,309	12,587		+2.4	+1.1	+2.3	
	Thousands				*Percent*			
Milk cows on farms[5]								
January	10,871	11,029	11,075	11,064	+0.9	+1.5	+0.4	−0.1
February	10,881	11,024	11,072	10,958	+1.0	+1.3	+0.4	−1.0
March	10,879	11,020	11,090	10,890	+1.0	+1.3	+0.6	−1.8
April	10,886	[3]11,005	11,094	10,856	+1.0	+1.1	+0.8	−2.1
May	10,898	[3]11,008	11,107	10,851	+1.0	+1.0	+0.9	−2.3
June	10,906	[3]11,015	11,116		+1.0	+1.0	+0.9	
July	10,904	[3]11,026	11,126		+0.9	+1.1	+0.9	
August	10,930	[3]11,031	11,129		+0.9	+0.9	+0.9	
September	10,949	[3]11,040	11,150		+1.0	+0.8	+1.0	
October	10,969	[3]11,055	11,159		+1.1	+0.8	+0.9	
November	10,993	[3]11,066	11,170		+1.2	+0.7	+0.9	
December	11,011	[3]11,071	11,146		+1.4	+0.5	+0.7	
Annual average	10,923	11,033	11,120		+1.0	+1.0	+0.8	

[1]Preliminary. [2]Excludes milk sucked by calves. [3]ERS derived data consistent with published official USDA quarterly estimates. No monthly data for an individual State or region are available. [4]May not add because of rounding. [5]Excludes heifers not yet fresh.

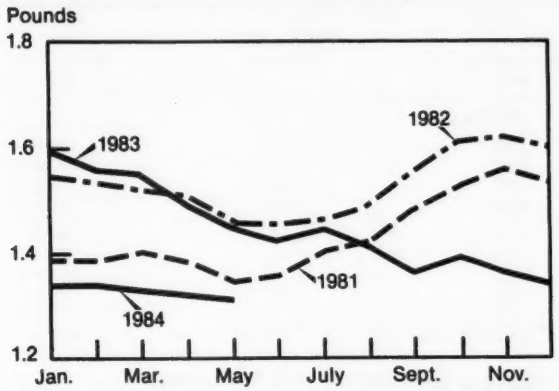
expected lower support prices in 1985, and better nondairy opportunities. If the Nation's dairy cow herd declines by 15,000 per month from June to December, the average number of cows for 1984 will be about 10.8 million—a drop of 2.6 percent from 1983's average. On the other hand, to average 10.7 million—a drop of 3.5 percent—the decline will have to be about 60,000 head per month.

Milk output per cow in 1984 is expected to be unchanged to down 1 percent. During January-May, daily output per cow averaged 0.4 percent less than a year earlier. The drop probably has been caused by concentrate feeding reduction and other management changes. On April 1, concentrate feeding per cow was 3 percent below a year earlier. On balance, milk production in calendar 1984 is projected to be 2.5 to 4.5 percent below 1983.

1983 Marketings Record Large

A record 137.6 billion pounds of milk were marketed by dairy farmers in 1983, up 3.1 percent from 1982. Whole milk sold to plants and dealers comprised 97.4 percent of total milk production, up a tenth of a percentage point from 1982. Milk sold directly to consumers by producers (and also milk produced by institutional herds) declined

Milk/16-Percent Feed Price Relationship*



*Pounds of 16% protein ration equal in value to one pound of milk sold to plants and dealers.

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Table 3.—Milk/16-percent feed price relationship, by months, 1981-84[1]

Month	1981	1982	1983	1984
		Pounds		
January	1.39	1.55	1.59	1.34
February	1.39	1.54	1.56	1.34
March	1.41	1.52	1.55	1.33
April	1.39	1.51	1.49	1.32
May	1.35	1.46	1.45	1.31
June	1.36	1.46	1.43	
July	1.40	1.47	1.45	
August	1.43	1.49	1.41	
September	1.48	1.56	1.36	
October	1.53	1.61	1.39	
November	1.56	1.62	1.36	
December	1.54	1.60	1.34	
Average	1.44	1.53	1.45	

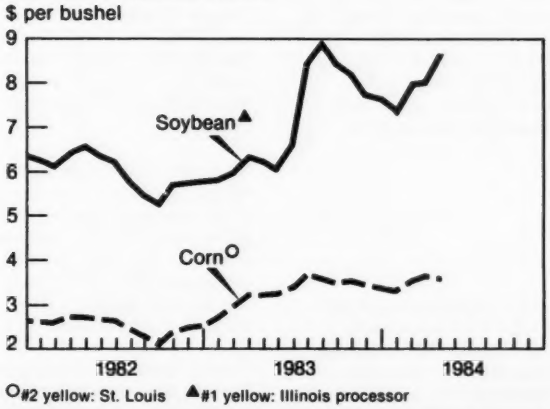
[1]Pounds of 16-percent protein ration equal in value to 1 pound of milk.

Table 4.—Corn, soybean meal, and 16-percent dairy feed ration prices, 1982-84

Month	Corn, No. 2 St. Louis			Soybean meal, Decatur			16-percent dairy feed		
	1982	1983	1984	1982	1983	1984	1982	1983	1984
		$/bu.			*$/ton*			*$/ton*	
January	2.65	2.52	3.41	191.0	179.3	201.9	181	175	205
February	2.61	2.79	3.31	191.0	177.1	184.4	180	177	201
March	2.66	2.99	3.55	183.6	177.3	196.4	179	175	199
April	2.78	3.24	3.61	190.2	186.8	190.0	179	182	199
May	2.78	3.24	3.58	192.4	185.8	198.0	181	184	197
June	2.75	3.27		183.6	175.5		179	184	
July	2.68	3.39		181.9	189.3		180	182	
August	2.42	3.68		169.0	232.8		177	189	
September	2.32	3.60		160.8	233.6		173	198	
October	2.12	3.50		157.0	228.6		171	199	
November	2.43	3.53		173.4	224.7		172	205	
December	2.49	3.45		178.5	218.0		174	205	
Average[1]	2.56	3.27		179.4	200.7		177	188	

[1]Simple average of monthly prices.

Corn and Soybean Prices



○#2 yellow: St. Louis ▲#1 yellow: Illinois processor

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Table 5.—Milk concentrate relationships, 1976-83

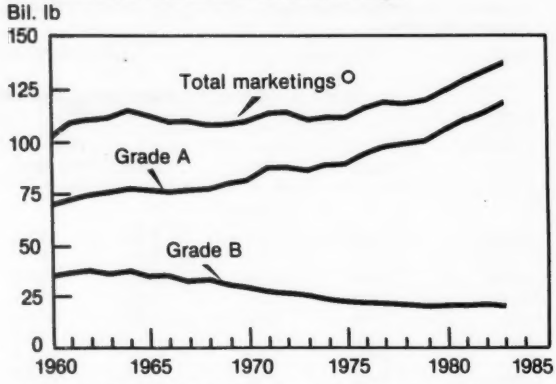
Year	All milk sold to plants[1]	Ration value	Cost of concentrate fed[2]	Milk-feed difference	Return over concentrate cost
			Dol per cwt		
1976	9.66	6.30	2.63	3.36	7.03
1977	9.71	6.20	2.61	3.51	7.10
1978	10.58	6.08	2.60	4.50	7.98
1979	12.03	6.68	2.95	5.35	9.08
1980	13.05	7.42	3.28	5.63	9.77
1981	13.76	8.02	3.44	5.74	10.32
1982	13.59	7.45	3.26	6.14	10.33
1983	13.57	7.88	3.40	5.69	10.17

[1]Simple average of reported monthly prices and after 1977. [2]Value of concentrate fed per 100 pounds of milk produced.

Table 6.—Utility cow prices, Omaha, by months, 1981-84

Month	1981	1982	1983	1984
		Dollars per cwt		
January	41.61	36.64	36.94	33.26
February	43.65	38.11	40.92	39.69
March	43.12	39.41	42.36	44.01
April	43.95	41.26	43.04	42.88
May	42.39	43.40	42.98	42.17
June	42.88	42.73	42.26	
July	43.78	42.52	41.14	
August	44.31	42.62	39.63	
September	42.47	41.52	37.75	
October	40.60	39.28	37.42	
November	37.70	36.58	34.14	
December	36.65	35.41	33.58	
Average	41.93	39.96	39.35	

Grade A and Grade B Milk Marketings*



*Grade A is eligible for the fluid market, grade B is manufacturing grade.
OMilk sold to plants and dealers.

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by 4 percent and was 0.9 percent of total production. Use of milk on farms where produced totaled 2.35 billion pounds, almost unchanged from a year earlier. On-farm use was 1.7 percent of total production in 1983, the same as in 1982.

Marketings of Grade A milk (eligible for fluid use) in 1983 totaled 117 billion pounds, up 3.5 percent from 1982. Grade A milk accounted for 86 percent of all milk sold to plants and dealers, one percentage point higher than 1982. Grade B (manufacturing only) marketings in 1983 were 19.4 billion pounds, up 1.2 percent from a year earlier. Grade B marketings last year in Wisconsin and Minnesota together totaled about 10 billion pounds, equal to 52 percent of total manufacturing grade milk sold to plants and dealers, the same percentage as in 1982.

PRICES AND INCOME

Wholesale Prices Move Up

During June, butter prices (Grade A, Chicago) jumped 18 cents to 160.75 cents per pound, 15.25 cents above a year earlier, 17.5 cents above the current CCC purchase price, and 3 cents above the sellback price. The price strength reflects this spring's improvement in the balance between butter and cream supplies and use. Most of the decline in milk production has been reflected in the production of butter. In addition, sales of butter and ice cream have been strong this spring.

The lower CCC purchase prices and continued surplus supplies during last winter and early this spring were reflected in January-May wholesale prices for butter, cheddar cheese, and nonfat dry milk. During May, butter (Grade A, Chicago) averaged 142.92 cents per pound, 4.3 cents below a year earlier and 0.7 cents below the CCC purchase price. However, butter prices since January this year have moved marginally higher each month, whereas during January-May 1983 prices did not change.

The price of cheddar cheese (Wisconsin assembly points, 40-pound blocks) has also demonstrated some strength since January. During 1983, the average price moved lower each month from January to June—a total drop of about 2 cents that left the price 2 cents below the CCC purchase price. This year, the price has been almost unchanged, staying about 1 cent per pound above the current CCC purchase price.

Nonfat dry milk prices have remained weak, however. During May, prices for high-heat nonfat dry milk (Central States area) averaged 90.75 cents per pound, slightly below CCC purchase prices. This average was the same

Table 7.—Milk used and marketed by farmers, 1976-83

	1977	1978	1979	1980	1981	1982	1983[5]
				Billion pounds			
Used on farms where produced:							
Fed to calves[1]	1.5	1.5	1.4	1.4	1.4	1.5	1.5
As fluid milk or cream[2]	1.3	1.2	1.0	.9	.9	.8	.8
Total on-farm use[3]	2.8	2.7	2.5	2.3	2.3	2.4	2.3
Milk marketed by farmers:							
Sold to plants and dealers	118.2	117.2	119.4	124.7	129.2	132.2	136.4
Sold directly to consumer[4]	1.5	1.5	1.5	1.5	1.5	1.3	1.2
Total milk marketed[3]	119.8	118.8	120.9	126.2	130.7	133.4	137.6
Total milk production[1, 3]	122.7	121.5	123.4	128.5	133.0	135.8	140.0

[1]Excludes milk sucked by calves. [2]Includes farm-churned butter. [3]May not add due to rounding. [4]By producers who sell only milk from their herds. Also includes milk produced by institutional herds. [5]Preliminary.

Table 8.—Manufacturing grade milk marketed, selected States, selected years

State	1973	1982	1983
		Billion pounds	
Wisconsin	7.3	6.1	6.0
Minnesota	5.7	3.8	4.1
Iowa	2.2	1.6	1.5
Missouri	1.0	.6	.5
South Dakota	1.1	1.1	1.1
Idaho	1.1	1.2	1.2
Nebraska	.2	.5	.5
California	.9	.6	.6
Kentucky	.6	.4	.4
Illinos	.7	.5	.5
Total U. S.	24.8	19.2	19.4

Table 9.—Fluid grade milk as percent of all milk sold by farmers to plants and dealers, selected years[1]

Region	1970	1974	1978	1982	1983
North Atlantic	99	99	99	100	100
South Atlantic	96	98	98	98	98
West No. Central	38	46	57	64	64
East No. Central	67	73	76	80	81
South Central	84	89	91	93	94
Western	85	88	91	91	91
U.S.	74	79	83	85	86

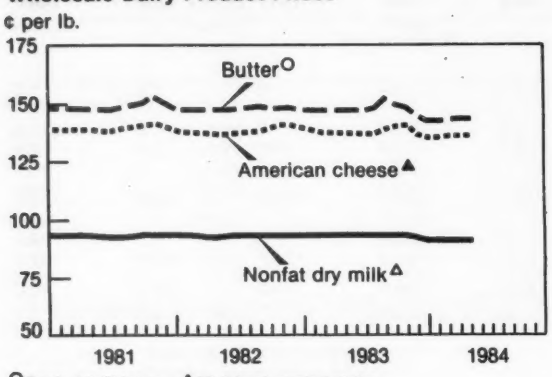
[1]Percentage eligible for fluid use (Grade A in most States). Includes fluid grade milk used in manufactured products.

Table 10.—Wholesale dairy product prices and indexes

Item	Unit	May. '82	May '83	Avg. '83	Jan. '84	Feb. '84	Mar. '84	Apr. '84	May '84
Butter, A, Chicago	cents/lb	147.25	147.25	147.30	140.44	141.25	142.11	142.94	142.92
Cheese, 40-lb blocks, Wisconsin assembly points	cents/lb	136.88	137.38	138.28	135.79	135.47	135.88	135.88	135.88
Nonfat dry milk, Central States, high heat	cents/lb	92.88	93.38	93.19	90.75	90.75	90.75	90.75	90.75
Wholesale price index (all dairy products)	1967=100	248.5	250.9	250.6	248.4	248.6	249.0	249.2	248.9
Fresh whole milk	1967=100	197.8	199.9	199.7	199.9	199.9	199.5	199.3	199.3
Butter	1967=100	225.8	226.4	226.5	218.8	219.2	220.2	220.2	221.3
Cheese	1967=100	312.3	314.1	314.1	308.9	307.5	309.5	309.7	308.8
Nonfat dry milk	1967=100	461.5	462.7	462.4	NA	NA	NA	NA	NA
Ice cream	1967=100	235.7	240.8	239.8	240.4	242.5	244.0	245.8	244.9

NA = Not available.

Wholesale Dairy Product Prices



○Grade AA Chicago. △High-heat, central-states.
▲40-lb. block, Wisconsin assembly points.

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as in January and 2.6 cents below a year earlier. While prices of dry buttermilk and dry whey have risen, they remain low relative to nonfat dry milk prices—indicating continued price weakness for solids-not-fat products.

Reflecting the wholesale spot prices, the Bureau of Labor Statistics (BLS) wholesale price index for all dairy products in May was below November 1983 and year-earlier levels. May marked the sixth month that the index was below a year earlier. The May reading was 248.9 (1967=100), 0.8 percent below a year earlier.

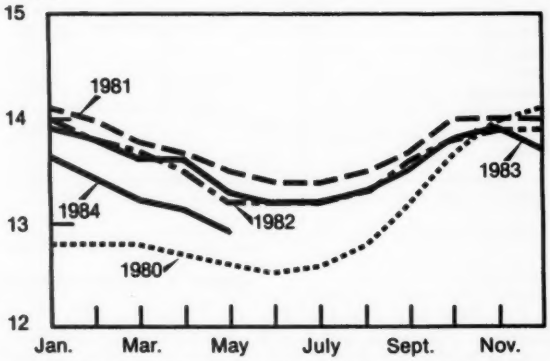
With the improved balance between supply and use expected to spread from butter and cream markets into other manufactured dairy products, prices for cheese should move higher this summer. In addition, nonfat dry milk prices may also strengthen late this year. The BLS wholesale price index for all dairy products is expected to move above a year earlier by late fall. For all of 1984, the index will likely average 0.5 percent lower to 1 percent higher than last year.

Farm Milk Prices Lower

Milk prices received by farmers in May were below a year earlier, because of the lower support price and continued surplus supplies. However, with the spring flush period now completed and a better balance between supply and demand developing, some price strength is expected in coming months, particularly by late summer.

Prices received by farmers for all milk during January-May averaged $13.26 per cwt, 38 cents (2.8 percent) below a year earlier. Adjusted for deductions, the effective price per cwt was $12.74, down 75 cents (5.6 percent) from 1983. The all-milk price is expected to strengthen somewhat more than it did during the seasonal recoveries of 1981-83, so that by yearend it probably will be unchanged to 30 cents higher than a year earlier. The average price for all of 1984 is likely to be 15 to 25 cents below 1983 (20 to 30 cents if adjusted for the deductions).

All Milk Prices*



*U.S. average price received by farmers for deliveries to plants and dealers.

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Table 11.—Milk prices received by farmers, by months, 1981-84

Month	All sold to plants				Manufacturing grade			
	1981	1982	1983	1984	1981	1982	1983	1984
	Dollars per cwt							
January	14.10	14.00	13.90	13.60	13.00	13.00	12.90	12.50
February	14.00	13.80	13.80	13.40	12.90	12.80	12.80	12.40
March	13.80	13.70	13.60	13.20	12.80	12.70	12.70	12.30
April	13.70	13.50	13.60	13.10	12.70	12.60	12.70	12.30
May	13.50	13.20	13.30	12.90	12.60	12.40	12.50	12.10
June	13.40	13.20	13.20		12.50	12.30	12.40	
July	13.40	13.20	13.20		12.40	12.30	12.30	
August	13.50	13.30	13.30		12.40	12.30	12.20	
September	13.70	13.60	13.50		12.60	12.60	12.50	
October	14.00	13.80	13.80		12.90	12.90	12.90	
November	14.00	13.90	13.90		13.00	13.00	13.00	
December	14.00	13.90	13.70		13.00	13.00	12.70	
Average[1]	13.76	13.59	13.57		12.73	12.66	12.60	

[1]Simple average of reported monthly prices.

The simple average of reported manufacturing grade milk prices during January-May was $12.32 per cwt, 40 cents below the average of reported prices a year earlier. During July-September, average prices are expected to strengthen and be 10 to 20 cents lower than a year earlier. This fall, Grade B prices will likely average about the same to 30 cents higher than last year. For all of this year, the average is anticipated to be 10 to 20 cents below 1983.

The minimum Federal order Class I price for July will be $14.23 per cwt, up 2 cents since March, but down 43 cents from a year earlier. The Minnesota-Wisconsin (M-W) manufacturing grade milk price is expected to strengthen this summer and be above a year earlier this fall. Thus, because the M-W is the basic mover of class prices in all Federal order markets, minimum Class I prices will be above a year earlier during early 1985.

Estimated average over-order prices on Class I milk in Federal order markets continue to reflect the stable price situation. During June, the estimated average over-order payment was 56 cents per cwt, up 3 cents from May and 4 cents below the average reached during June of the last year. For the first half of 1984, these over-order payments averaged 56 cents and ranged from a low of 50 cents in January to a high of 59 cents in February and March.

Supreme Court Rules in Reconstituted Milk Suit

The Supreme Court ruled 8 to 0 on June 4 that consumers do not have standing to bring a suit against USDA to invalidate marketing orders established under the Agricultural Marketing Agreement Act of 1937, as amended. The Court ruled exclusively on the issue of standing. Consideration of the basic issue in the case—the pricing of reconstituted milk under all market orders—had been held in abeyance pending a resolution of the question of standing. Since consumers were judged to lack standing, the pricing issue will not be heard.

The initial suit was filed by the Community Nutrition Institute (CNI), three consumers, and a regulated handler. The U.S. District Court had upheld the USDA in its claim that, CNI and the three consumers did not have standing to bring suit, and that the third petitioner, a regulated milk handler, had not exhausted available administrative appeals before going to court. The Court of Appeals reversed this decision in part, saying that consumers did have standing to sue, setting the stage for the Supreme Court action.

Milk Cash Receipts Rose in 1983, Falling in 1984

For all of 1983, cash receipts from marketings of milk and cream sold to plants and dealers and from direct marketings to consumers totaled $18.8 billion, a gain of nearly 3 percent from 1982 and 3.8 percent over 1981. However, reduced to reflect the net deductions (total less September-November 1983 refunds), cash receipts were down $100 million (0.5 percent) in 1983. In contrast, receipts in 1981 were 9.3 percent larger than those in 1980.

Table 12.—Cash receipts from farm marketings of milk and cream, by State and farm production region, 1981-83[1]

State and region	1981	1982	1983[2]
		Million dollars	
Maine	102.4	105.8	107.5
New Hampshire	49.8	52.4	55.0
Vermont	323.0	330.4	337.0
Massachusetts	86.0	89.1	91.3
Rhode Island	6.6	6.6	6.6
Connecticut	90.5	92.8	94.2
New York	1,502.1	1,494.0	1,573.8
New Jersey	69.5	68.3	70.0
Pennsylvania	1,282.6	1,301.7	1,330.9
Delaware	17.4	18.8	18.9
Maryland	220.8	219.5	222.9
NORTHEAST	3,750.7	3,779.4	3,908.1
Michigan	694.0	703.9	739.9
Wisconsin	3,007.6	3,000.7	3,075.8
Minnesota	1,306.7	1,333.0	1,402.0
LAKE STATES	5,008.3	5,037.6	5,217.7
Ohio	598.6	617.5	642.5
Indiana	310.4	312.8	316.9
Illinois	354.5	353.2	361.1
Iowa	559.3	552.4	558.0
Missouri	380.6	380.9	406.3
CORN BELT	2,203.4	2,216.8	2,284.8
North Dakota	121.0	123.1	129.0
South Dakota	225.4	227.4	235.5
Nebraska	183.6	174.2	184.2
Kansas	192.2	186.7	190.2
NORTHERN PLAINS	722.2	711.4	738.9
Virginia	281.0	282.9	284.9
West Virginia	47.5	46.6	51.2
North Carolina	239.6	240.5	245.1
Kentucky	298.0	307.8	314.5
Tennessee	308.5	304.6	295.3
APPALACHIAN	1,174.6	1,182.4	1,191.0
South Carolina	86.5	86.9	88.9
Georgia	202.3	200.9	200.1
Florida	347.6	343.4	346.3
Alabama	89.9	83.5	84.4
SOUTHEAST	726.3	714.7	719.7
Mississippi	123.0	127.3	124.3
Arkansas	109.8	114.8	122.0
Louisiana	146.3	141.4	137.6
DELTA STATES	379.1	383.5	383.9
Oklahoma	163.7	165.6	161.8
Texas	540.9	550.1	576.7
SOUTHERN PLAINS	704.6	715.7	738.5
Montana	42.4	42.8	44.9
Idaho	273.5	283.5	290.8
Wyoming	17.2	17.0	16.8
Colorado	134.3	138.7	141.8
New Mexico	102.7	123.8	138.5
Arizona	158.9	166.4	171.3
Utah	144.1	148.7	150.1
Nevada	29.2	29.3	31.1
MOUNTAIN	902.3	950.2	985.3
Washington	413.8	436.4	472.3
Oregon	166.8	178.5	188.0
California	1,943.2	1,941.2	1,947.6
PACIFIC	2,523.8	2,556.1	2,607.9
Alaska	2.5	2.8	2.9
Hawaii	30.3	21.9	28.9
UNITED STATES	18,127.6	18,272.8	18,807.6

[1]Totals may not add due to rounding. [2]Preliminary.

Last year's before-adjustment gain was entirely the result of increased milk and cream marketings by farmers. Sales of whole milk and cream to plants and dealers contributed 98.5 percent of the cash receipts from marketings, up one-tenth of a percentage point from 1982.

For the first 5 months of 1984, cash receipts from milk and cream marketings are estimated to have decreased 4.8 percent from a year earlier—marketings are down 1.3 percent, while the average of reported all-milk prices is down 1.8 percent. Adjusted for differences in deductions, the receipts are down 6.8 percent for the first 5 months.

Retail Dairy Prices Rise Less Than Other Food

In April, the BLS retail price index for all dairy products stood at 251.5 (1967=100), up 0.6 percent from April 1983. During January-April, the dairy index has averaged 0.5 percent higher than a year earlier. In contrast, the all-food index has increased an average 4 percent. In 1984, retail dairy prices are likely to be up 0.5 to 2 percent, while all food prices are expected to climb 4 to 7 percent.

Retail Food and Dairy Product Prices

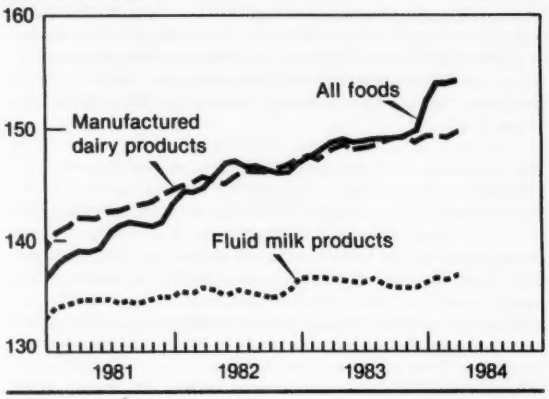

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Table 13.—Retail dairy product prices

Item	Unit	Apr. 1982	Avg. 1982	Apr. 1983	Avg. 1983	Jan. 1984	Feb. 1984	Mar. 1984	Apr. 1984
Milk, fresh, whole[1]	$ per 1/2 gal	1.127	1.124	1.133	1.128	1.124	1.122	1.121	1.126
Milk, fresh, skim	$ per 1/2 gal	.983	.979	.980	.986	.999	.995	1.000	1.013
Milk, fresh, lowfat	$ per 1/2 gal	1.065	1.062	1.082	1.074	1.067	1.072	1.068	1.073
Butter, salted, Grade AA, sticks	$ per lb	2.050	2.046	2.066	2.066	2.055	2.035	2.057	2.041
Ice cream, prepackaged, bulk, regular	$ per 1/2 gal	2.089	2.102	2.107	2.158	2.189	2.191	2.171	2.210
Yogurt, natural, fruit-flavored	$ per 1/2 pt	.499	.503	.505	.514	.522	.517	.532	.542

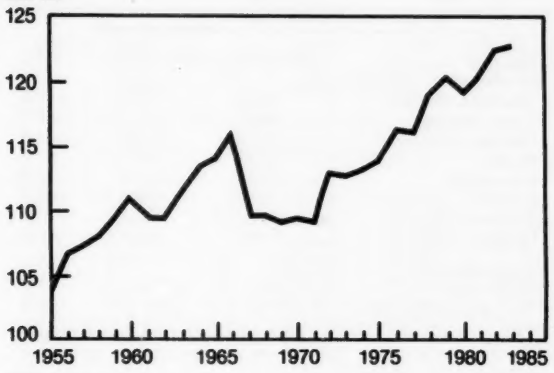
[1]Vitamin fortified. NA = Not available.

Table 14.—Retail price indexes[1]

Item	Index base	Apr. 1982	Avg. 1982	Apr. 1983	Avg. 1983	Jan. 1984	Feb. 1984	Mar. 1984	Apr. 1984
Consumer price index	1967=100	284.3	289.1	295.5	298.4	305.2	306.6	307.3	308.8
All food	1967=100	283.9	285.7	291.9	291.7	299.4	302.1	302.2	302.3
All dairy products	1967=100	247.5	247.0	250.1	249.9	250.8	250.9	250.8	251.5
Fluid milk and cream	12/77=100	135.9	135.4	136.6	136.3	136.4	136.6	136.5	136.8
Whole milk	1967=100	222.2	221.4	223.5	222.9	222.7	223.3	222.9	223.7
Other	12/77=100	136.2	135.6	136.7	136.7	137.3	137.0	137.3	137.3
Manufactured dairy products	12/77=100	145.6	145.6	148.1	148.3	149.3	149.3	149.2	149.6
Butter	1967=100	250.1	251.1	253.9	254.0	254.7	253.4	254.4	252.4
Cheese	12/77=100	143.7	143.9	146.5	146.3	147.0	146.0	146.3	146.6
Frozen desserts	12/77=100	150.9	150.4	152.0	153.2	154.8	155.6	155.3	165.4
Other	12/77=100	139.9	140.2	144.5	144.4	146.1	146.2	146.9	148.2

[1]For all urban consumers.

Total Commercial Disappearance*



*Milk in all products.

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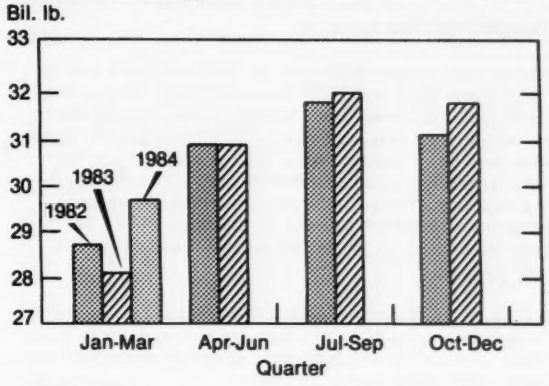
Commercial Disappearance of Milk in All Products*



*Milk equivalent.

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Table 15.—Commercial disappearance: Total milk, annual and quarters, 1982-84[1]

Item	1982					1983[2]					1984
	Quarters					Quarters				Year	Quarters
	I	II	III	IV		I	II	III	IV		I
	Billion pounds										
Production	33.2	35.7	34.0	32.9	135.8	34.2	36.9	35.0	33.8	140.0	34.1
Farm use	.6	.6	.6	.6	2.4	.6	.6	.6	.6	2.3	.6
Marketings	32.7	35.1	33.4	32.3	133.4	33.7	36.3	34.4	33.2	137.6	33.6
Beginning commercial stocks	5.4	5.2	5.0	4.6	5.4	4.6	5.2	5.3	5.2	4.6	5.2
Imports	.4	.6	.6	.9	2.5	.6	.5	.6	.9	2.6	.6
Total supply	38.5	40.9	39.0	37.7	141.3	38.9	42.0	40.3	39.3	144.8	39.4
Ending commercial stocks	5.2	5.0	4.6	4.6	4.6	5.2	5.3	5.2	5.2	5.2	5.3
Net removals	4.7	4.9	2.6	2.1	14.3	5.6	5.8	3.1	2.3	16.8	4.3
Commercial disappearance (actual)	28.7	30.9	31.8	31.1	122.4	28.1	30.9	32.0	31.8	122.8	29.7
Percent change[3]	+2.6	+2.1	+0.2	+1.6	+1.6	−2.1	−0.0	+0.8	+2.3	+0.3	[4]+4.4

[1]Milk-equivalent, fat-solids basis. Totals may not add because of rounding. [2]Preliminary. [3]From year earlier, using unrounded data. [4]On a daily average basis.

Table 16.—Commercial disappearance: Selected dairy products, 1978-84[1]

Year	Butter[2]	Cheese		Nonfat dry milk	Canned milk	Frozen products[4]
		American[3]	Other			
		Million pounds				*Million gallons*
1978	903.5	2,064.7	1,655.5	658.4	776.1	1,173.5
1979	895.0	2,113.1	1,730.4	603.1	773.7	1,152.1
1980	878.8	2,023.9	1,827.9	538.9	732.5	1,166.9
1981	869.2	2,147.9	1,875.6	464.1	750.4	1,167.7
1982-1st Qtr.	211.4	541.3	462.9	105.0	170.6	249.6
2nd Qtr.	217.6	546.1	484.5	75.5	150.1	334.3
3rd Qtr.	217.3	549.4	501.0	147.1	164.7	346.2
4th Qtr.	251.0	528.0	596.2	120.1	230.0	248.1
Total	897.3	2,165.0	2,044.6	447.7	715.3	1,178.2
1983-1st Qtr.	209.5	466.9	494.6	109.6	160.8	264.4
2nd Qtr.	198.6	570.7	508.3	106.4	159.0	340.6
3rd Qtr.	217.0	500.2	521.1	122.4	144.5	366.4
4th Qtr.	256.6	545.4	609.4	121.6	221.4	250.1
Total[5]	881.7	2,083.2	2,133.3	459.9	685.8	1,221.5
1984-1st Qtr.[5]	206.9	557.6	527.4	137.0	134.7	271.1

[1]Total may not add because of rounding. [2]Imports include butter-equivalent of butteroil. [3]Imports include Colby cheese; stocks do not include processed cheese. [4]Excludes Mellorine. [5]Preliminary.

UTILIZATION

Commercial Use Expands

Commercial disappearance of all milk and dairy products (milk-equivalent, fat-solids basis) has been very strong since fourth-quarter 1983. During January-April, based on preliminary data, use was up 2.7 billion pounds (6 percent on a daily average basis) from a year earlier. In 1983, commercial use was slow to respond to the improving economy. When this occurs, a period of unusually large increases often follows, for example, 1972. The large gains may be partly the result of restocking the retail pipeline.

If no additional gains or losses were posted for the rest of 1984, commercial disappearance for the year would be about 2 percent above last year. However, some additional gains seem likely, because of

- the improved price position of dairy relative to other food items,
- the larger real per capita incomes,
- additional population, and
- the national dairy product promotion program.

On balance, use for all of 1984 is anticipated to be up 2 to 4 percent.

A comparison of commercial disappearance (sales) of major dairy products during January-April with those of a year earlier, on a daily-average basis, shows that butter was up 6 percent, American cheese 18 percent, cheese other than American types 6.5 percent, ice cream 2.3 percent, nonfat dry milk 16 percent, and fluid products 0.7 percent. Meanwhile, canned milk was down about 12 percent.

Table 17.—Dairy sales, January-April, 1983-84

Item	1983	1984	Change
	Million pounds		
Total milk[1]	37,897.0	40,560.0	+7.0
Manufactured products:			
American cheese	645.9	768.5	+19.0
Other cheese	664.9	713.3	+7.3
Cottage cheese[2]	317.2	319.8	+.8
Butter	273.1	294.2	+7.7
Ice cream	1,272.0	1,301.6	+2.3
Ice milk	461.8	487.9	+5.7
Canned milk	207.2	183.1	−11.6
Nonfat dry milk	144.8	171.7	+18.6
Fluid products[4]			
Whole milk	6,373	6,233	−2.4
Skim and lowfat milk	5,489	5,741	+4.3

[1]On a milk equivalent, fat-solids-basis. [2]Creamed and low-fat. [3]Based on Federal order data, percent change adjusted for calendar composition and seasonality.

Record Amount of Milk Used In Manufacturing During 1983

Manufactured dairy products, on a milk-equivalent, fat-solids basis, during 1983 totaled 84 billion pounds, 3.4 billion (4.2 percent) more than the 1982 record. The amount of fluid-eligible (Grade A) milk used in manufactured dairy products during 1983 was 64.9 billion, up 3.5 billion (5.7 percent) from 1982.

Butter output—excluding that churned from whey cream, but including residual cream from fluid and other markets—claimed 3.2 percent more milk in 1983 than in 1982, using nearly 27.8 billion pounds. Cheese production, not including cottage cheese, used a total of 41 billion pounds of milk last year, up 5.4 percent from 1982. American-type cheese used 29.3 billion of that, a gain of 6.4 percent; other-than-American types used 11.7 billion, nearly 3 percent more than in 1982. Milk used for ice

Table 18.—Dairy products: Per capita consumption, United States, 1970-83

Year	Fluid milk and cream[1]	Butter	Cheese		Cottage cheese	Evaporated and condensed			Frozen products					Dry milk products			
			Whole and part skim milk[2]			Canned, whole milk	Bulk, whole milk	Bulk and canned, skim milk	Ice cream	Ice milk	Sherbet	Other frozen dairy products	Mellorine	Dry whole milk	Nonfat dry milk	Dry buttermilk	Dry whey[3]
			American	Other													
			Pounds														
1970	277	5.3	7.1	4.4	5.2	5.9	1.2	5.0	17.6	7.8	1.6	0.2	1.2	0.2	5.3	0.2	0.9
1971	275	5.1	7.4	4.7	5.4	5.7	1.1	5.1	17.5	7.7	1.6	.2	1.1	.2	5.3	.3	1.0
1972	276	4.9	7.8	5.3	5.5	5.1	1.2	4.7	17.3	7.7	1.6	.3	1.1	.1	4.6	.2	1.7
1973	272	4.8	7.9	5.7	5.3	4.8	1.1	4.3	17.3	7.6	1.6	.3	.9	.1	5.3	.2	1.8
1974	262	4.5	8.6	6.0	4.7	4.4	1.2	3.5	17.4	7.7	1.5	.3	.8	.1	4.2	.2	2.0
1975	267	4.7	8.2	6.1	4.7	3.9	1.4	3.6	18.5	7.7	1.5	.3	.7	.1	3.3	.2	2.2
1976	264	4.3	9.0	6.7	4.7	3.7	1.3	3.6	17.9	7.3	1.5	.3	.5	.2	3.5	.2	2.4
1977	260	4.3	9.3	6.8	4.7	3.2	1.1	3.9	17.5	7.8	1.5	.3	.4	.2	3.3	.3	2.4
1978	257	4.4	9.6	7.4	4.7	3.1	1.1	3.5	17.4	7.7	1.4	.4	.4	.3	3.1	.2	2.5
1979	253	4.5	9.6	7.6	4.5	3.0	1.1	3.4	17.1	7.3	1.3	.3	.3	.3	3.3	.2	2.7
1980	250	4.5	9.7	7.9	4.5	2.8	1.0	3.3	17.3	7.2	1.3	.3	.3	.3	3.0	.2	2.7
1981	246	4.3	10.3	8.1	4.4	2.9	1.2	3.2	17.2	7.0	1.3	.6	.2	.2	2.6	.2	2.8
1982	242	4.6	11.5	8.6	4.2	2.8	1.3	3.0	17.5	6.7	1.3	.7	.2	.1	2.7	.2	2.9
1983[4]	240	5.1	11.6	9.0	4.2	2.7	1.2	3.2	17.9	7.0	1.3	.6	.2	.1	3.0	.2	3.0

[1]Product pounds of commercial sales and on farm consumption. Commercial sales includes whole milk, lowfat milk, skim milk, buttermilk, flavored milk and drinks, cream, milk-cream mixtures, sour cream and dips, eggnog and yogurt. [2]Excludes cottage cheese. [3]Includes modified dry whey products beginning 1975. [4]Preliminary or estimated.

Table 19.—Milk and dairy product sales (domestic disappearance, commercial sources), total and per capita, United States, 1976-83[1]

Year	Fluid milk products sales					Butter	Cheese			Evaporated and condensed	
	Fluid whole milk	Cream[2]	Low-fat milk[3]	Total product weight	Whole milk equivalent[4]		Whole and part skim milk[5]		Cottage cheese[6]	Whole milk	Skimmed milk
							American	Other			
	Total sales										
	Million pounds										
1976	37,061	1,189	17,710	55,960	51,502	932	1,917	1,441	1,023	1,046	783
1977	35,638	1,199	18,988	55,825	51,380	860	1,916	1,489	1,029	915	854
1978	34,938	1,214	19,813	55,965	51,175	894	2,055	1,621	1,036	885	772
1979	33,937	1,251	20,647	55,835	51,386	921	2,116	1,698	1,010	866	750
1980	32,754	1,276	21,743	55,773	50,855	894	2,015	1,795	1,017	839	747
1981	31,685	1,316	22,443	55,444	50,215	880	2,202	1,841	992	914	726
1982[7]	30,670	1,335	22,780	54,785	49,346	891	2,226	1,990	978	907	701
1983[7]	29,965	1,375	23,490	54,830	49,728	897	2,074	2,096	974	879	742
	Per capita sales[8]										
	Pounds										
1976	172	5.5	82.2	260	239	4.3	8.8	6.6	4.7	4.8	3.6
1977	164	5.5	87.1	256	236	3.9	8.7	6.8	4.7	4.2	3.9
1978	159	5.5	89.9	254	232	4.0	9.3	7.3	4.7	4.0	3.5
1979	152	5.6	92.5	250	230	4.1	9.4	7.6	4.5	4.0	3.3
1980	145	5.7	96.3	247	225	3.9	8.9	7.9	4.5	3.7	3.3
1981	139	5.8	98.4	243	220	3.8	9.6	8.0	4.3	4.0	3.2
1982[7]	133	5.8	98.9	238	214	3.8	9.6	8.6	4.2	3.9	3.0
1983[7]	129	5.9	101.0	236	214	3.8	8.9	9.0	4.2	3.8	3.2

	Frozen products					Dry products			
	Ice cream	Ice milk	Sherbet	Other	Mello-rine	Whole milk	Nonfat dry milk	Butter-milk	Whey[9]
	Total sales								
	Million pounds								
1976	3,928	1,574	322	64	112	33	743	38	527
1977	3,887	1,694	324	72	90	34	698	59	530
1978	3,914	1,705	312	77	78	56	640	50	543
1979	3,893	1,632	288	72	75	66	690	42	597
1980	3,983	1,614	284	62	63	63	643	42	604
1981	3,996	1,601	288	[10]144	54	39	566	45	629
1982[7]	4,090	1,543	296	[10]150	49	34	562	40	669
1983[7]	4,218	1,623	310	[10]130	50	43	627	44	722
	Per capita sales[8]								
Pounds									
1976	18.1	7.2	1.5	0.3	0.5	0.2	3.4	0.2	2.4
1977	17.7	7.7	1.5	.3	.4	.2	3.2	.3	2.4
1978	17.6	7.7	1.4	.4	.4	.3	2.9	.2	2.4
1979	17.3	7.3	1.3	.3	.3	.3	3.1	.2	2.7
1980	17.5	7.1	1.3	.3	.3	.3	2.8	.2	2.7
1981	17.4	7.0	1.3	.6	.2	.2	2.5	.2	2.7
1982[7]	17.7	6.7	1.3	.6	.2	.1	2.4	.2	2.9
1983[7]	18.0	6.9	1.3	.6	.2	.2	2.7	.2	3.1

[1]Excludes milk used on farms where produced and distribution from USDA supplies; includes sales to the Armed Services for use in the United States. [2]Includes milk and cream mixtures. [3]Includes skim milk, buttermilk, flavored milk drinks, and yogurt. [4]Fat-solids basis. [5]Excludes cottage cheese. [6]Includes full-skim American. [7]Preliminary or estimated. [8]Based on resident population, except fluid milk product sales, which are based on estimated population using fluid products from purchased sources. [9]Includes modified whey products starting 1975. [10]Includes frozen yogurt.

Table 20.—Sales and civilian consumption of American and other cheese, 1976-83

Year and cheese	Sales[1]			USDA donations			Civilian consumption	Per capita	
	Civilian	Military	Total	Civilian	Military	Total		Sales	Civilian consumption
	Million pounds							*Pounds*	
American cheese									
1976	1,913	4	1,917	25	—	25	1,938	8.8	9.0
1977	1,909	7	1,916	117	—	117	2,026	8.7	9.3
1978	2,046	9	2,055	70	—	70	2,116	9.3	9.6
1979	2,101	21	2,122	42	—	42	2,143	9.4	9.6
1980	2,004	12	2,016	179	2	181	2,183	8.9	9.7
1981	2,192	9	2,201	151	1	152	2,343	9.6	10.2
1982	2,216	10	2,226	429	3	432	2,645	9.6	11.5
1983[2]	2,064	10	2,074	634	6	640	2,698	8.9	11.6
Other cheese									
1976	1,438	3	1,441	—	—	—	1,438	6.6	6.7
1977	1,487	2	1,489	—	—	—	1,487	6.8	6.8
1978	1,621	2	1,623	—	—	—	1,621	7.3	7.4
1979	1,695	3	1,698	—	—	—	1,695	7.6	7.6
1980	1,793	2	1,795	—	—	—	1,793	7.9	7.9
1981	1,839	2	1,841	—	—	—	1,839	8.0	8.1
1982	1,988	2	1,990	—	—	—	1,988	8.6	8.6
1983[2]	2,094	2	2,096	—	—	—	2,094	9.0	9.0

[1]Domestic disappearance, commercial sources. [2]Preliminary.

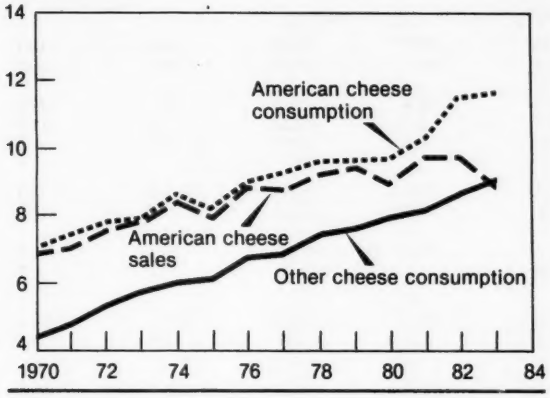
Table 21.—Per capita civilian consumption of selected cheese varieties, 1976-83

Year	Natural equivalent of cheese and cheese products												
	American			Italian							Miscellaneous		
	Cheddar	Other[1]	Total	Provolone	Romano	Parmesan	Mozzarella	Ricotta	Other	Total	Swiss[2]	Brick	Muenster
	Pounds												
1976	6.52	2.47	8.98	.32	.17	.28	2.34	.41	.08	3.60	1.26	.09	.26
1977	6.86	2.44	9.29	.35	.16	.27	2.49	.41	.09	3.77	1.22	.07	.25
1978	7.00	2.59	9.60	.37	.19	.28	2.72	.45	.11	4.12	1.35	.08	.27
1979	6.97	2.63	9.61	.41	.16	.32	2.84	.47	.08	4.28	1.36	.06	.29
1980	6.90	2.78	9.68	.42	.15	.28	3.05	.47	.10	4.47	1.34	.07	.31
1981	7.15	3.13	10.28	.45	.14	.31	3.01	.50	.09	4.50	1.28	.06	.30
1982	8.91	2.59	11.49	.47	.17	.33	3.32	.48	.12	4.89	1.31	.06	.31
1983[4]	9.13	2.49	11.61	.50	.16	.33	3.71	.54	.09	5.33	1.26	.06	.31

	Natural equivalent—continued						Product-weight form				
	Miscellaneous—continued					Total	Processed				
	Cream and Neufchatel	Blue[5]	Edam and Gouda	Other	Total		Cheese	Foods and spreads	Total	Natural	Total[6]
						Pounds					
1976	0.78	0.18	0.11	0.40	3.08	15.7	3.8	2.6	6.5	10.5	17.0
1977	.81	.17	.11	.44	3.07	16.1	3.8	3.3	7.1	10.6	17.7
1978	.90	.19	.12	.34	3.25	17.0	3.7	3.3	7.0	11.5	18.5
1979	.95	.17	.13	.38	3.34	17.2	3.7	3.1	6.8	11.9	18.7
1980	1.01	.17	.13	.45	3.48	17.6	3.8	3.1	7.0	12.2	19.2
1981	1.06	.16	.15	.57	3.58	18.4	3.6	3.2	6.7	13.2	19.9
1982	1.14	.16	.19	.59	3.76	20.1	4.5	3.3	7.8	13.9	21.7
1983[4]	1.16	.16	.19	.54	3.68	20.6	5.1	3.2	8.3	14.1	22.4

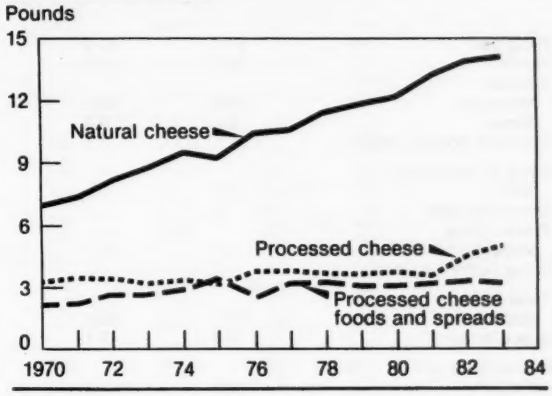
[1]Includes colby, washed curd, stirred curd, Monterey, and jack. [2]Includes imports of Gruyere and Emmenthaler. [3]Not available. [4]Preliminary. [5]Includes Gorgonzola. [6]Total product-weight is greater than natural equivalent because processed cheese and cheese food is made from natural cheese and other dairy products. Numbers may not add due to rounding.

Per Capita Cheese Consumption and Sales



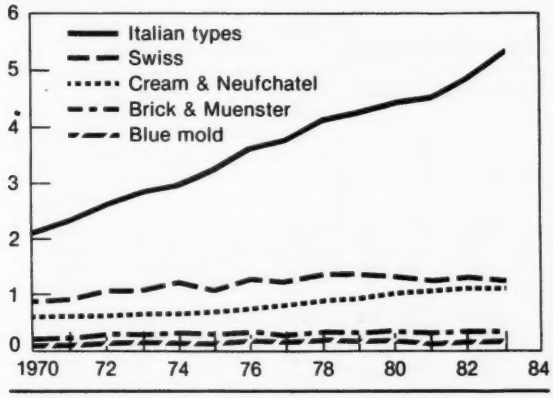
USDA Neg. ERS 8371-84(6)

Per Capita Consumption of Processed and Natural Cheese



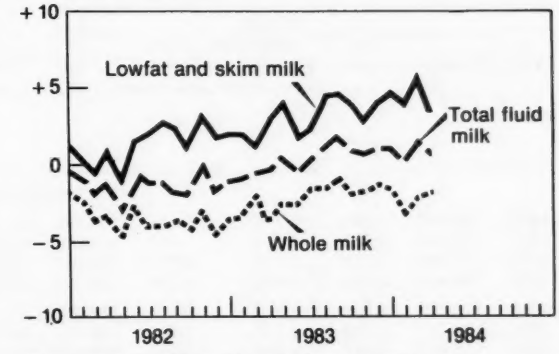
USDA Neg. ERS 8373-84(6)

Per Capita Consumption of Other Cheese



USDA Neg. ERS 8370-84(6)

Daily Average Sales of Fluid Milk Items



*From year earlier. Adjusted for calendar composition.

USDA Neg. ERS 2705-84(6)

Table 22.—Production of selected manufactured dairy products, annual, 1981-83

Item	Units	1981	1982	1983[1]	Change from year earlier 1982	Change from year earlier 1983[1]
Butter	Mil. lb	1,228.2	1,257.0	1,299.2	+2.3	+3.4
American cheese	Mil. lb	2,642.3	2,752.3	2,927.6	+4.2	+6.4
Other cheese	Mil. lb	1,635.3	1,789.4	1,890.8	+9.4	+5.7
Cottage cheese[2]	Mil. lb	981.7	966.4	958.0	−1.6	−0.9
Canned milk	Mil. lb	757.9	734.9	694.2	−3.0	−5.5
Dry whole milk	Mil. lb	92.7	102.2	111.2	+10.2	+8.8
Ice cream	Mil. gal	832.4	852.1	878.8	+2.4	+3.1
Milk equivalent[3]	Bil. lb	77,916	80,583	83,992	+3.4	+4.2
Nonfat dry milk	Mil. lb	1,314.3	1,400.5	1,499.9	+6.6	+7.1

[1]Preliminary. [2]Creamed and lowfat. [3]Total reported manufactured products using unrounded data.

Table 23.—Use of market supply of milk, 1977-83

Item	1977	1978	1979	1980	1981	1982	1983[1]
				Billion pounds (milk equivalent)			
Fluid use	51.4	51.2	51.4	50.9	50.2	49.3	49.7
Butter[2]	21.9	19.7	19.4	22.8	24.6	25.0	25.8
Cheese							
American	20.5	20.7	21.9	23.8	26.2	27.5	29.3
Other	8.4	9.2	9.7	10.2	10.3	11.4	11.7
Creamed cottage cheese	1.1	1.1	1.0	1.0	1.0	1.0	.9
Evap. & condensed milk[3]	2.4	2.3	2.3	2.1	2.3	2.2	2.2
Dry whole milk	.5	.5	.6	.6	.7	.8	.8
Frozen dairy products, net	11.7	11.7	11.7	11.9	12.0	12.1	12.6
Other factory products	.7	.7	.9	.9	.8	.7	.7
Total factory products[4]	67.1	65.9	67.5	73.3	77.9	80.6	84.0
Miscellaneous[5]	1.6	2.1	2.3	2.2	2.8	3.8	4.2
Market supply of milk[6]	122.9	121.9	123.7	128.7	133.2	136.1	140.3

[1]Preliminary. [2]Excludes milk equivalent of whey cream, includes milk equivalent of residual cream from fluid and other uses. [3]Canned and bulk. [4]May not add due to rounding. [5]Minor miscellaneous uses and any inaccuracies of independently determined use items. [6]Milk marketed by farmers, net imports of ingredients such as frozen cream, butterfat-sugar mixtures and "ice cream", and net change in storage cream.

Table 24.—Milk: Supply and utilization in all dairy products, United States, 1976-83[1]

Year	Supply					Utilization						
	Production	Imports	Beginning stocks		Total	Total use	Exports and shipments		Domestic disappearance			
			Commercial	Government			Commercial[2]	USDA[3]	Fed to calves	Food use		
										Military	Civilian consumption	
											Total	Per capita
				Million pounds								*Pounds*
1976	120,180	1,943	3,719	124	125,966	120,257	1,004	23	1,567	1,013	116,650	540
1977	122,654	1,968	5,299	410	130,331	121,705	963	29	1,541	996	118,176	542
1978	121,461	2,310	4,916	3,710	132,397	123,668	927	51	1,497	977	120,216	545
1979	123,411	2,305	4,475	4,254	134,445	125,846	982	38	1,437	1,163	122,226	548
1980	128,525	2,109	5,419	3,180	139,233	126,274	932	56	1,395	1,067	122,824	544
1981	133,013	2,329	5,752	7,207	148,301	129,923	3,683	67	1,418	1,019	123,736	543
1982	135,802	2,477	5,398	12,980	156,657	136,603	3,954	644	1,521	1,369	129,113	561
1983[4]	139,968	2,616	4,603	15,451	162,638	139,992	1,396	1,608	1,514	1,307	134,166	578

[1]Milk equivalent, fat-solids basis. [2]Includes sales for dollars and government-to-government sales. [3]Includes P.L. 480 and AID programs. [4]Preliminary.

cream and other frozen dairy products equaled 12.6 billion pounds, a gain of 3.8 percent.

Milk used to manufacture dairy products during January-April was about 26.9 billion pounds, a decline of 1.2 billion (4 percent) from the same period of 1983. On a milk-equivalent, fat-solids basis, butter output was down about 1.1 billion pounds and American-type cheese was down 0.3 billion, while other-than-American type cheese was up about 0.2 billion.

Wisconsin Milk Shipments Larger

The total volume of Wisconsin out-of-State milk shipments during January-May was more than eight times larger than a year earlier. However, all of the loads to date have moved to Indiana and Illinois.

Shipments will probably rise sharply in coming months to meet the need for milk in the South. This heavy out-of-area movement of milk will reinforce the interregional nature of the milk market and tighten supplies of milk for manufacturing.

USDA Stocks Continue Larger

Milk-equivalent stocks held by USDA on May 1 were about 18 billion pounds, an increase of 435 million (2.5 percent) from a year earlier. However, holdings have dropped about 1.2 billion since the seasonal peak on October 1, 1983. This drop is because use of CCC stocks has been larger than market removals. Government holdings of cold-storage butter on May 1 were down from October 1 and year-earlier levels by about 32 million pounds.

Likewise, USDA's American cheese cold-storage and process American cheese holdings declined from 847.5 million pounds on October 1 to 799.2 million on May 1, but remained nearly 100 million more than a year earlier.

Table 25.—Milk solids in all dairy products: Production and disposition, 1976-83

Year	Production[1]	Sold by farmers	Civilian disposition				
			Consumed on farms where produced[2]	USDA donations[3]	Sales[4]	Total	Per capita
	Million pounds						*Pounds*
	Milkfat						
1976	4,402	4,294	51	17	4,211	4,279	19.8
1977	4,481	4,378	47	109	4,158	4,314	19.8
1978	4,455	4,357	43	85	4,284	4,412	20.0
1979	4,518	4,428	38	88	4,357	4,483	20.1
1980	4,696	4,611	34	158	4,305	4,497	19.9
1981	4,843	4,758	32	136	4,343	4,511	19.8
1982[5]	4,963	4,871	31	271	4,394	4,696	20.4
1983[5]	5,114	5,023	30	436	4,386	4,852	20.9
	Milk solids-not-fat						
1976	10,335	10,081	118	32	8,094	8,244	38.2
1977	10,536	10,283	110	71	8,025	8,206	37.6
1978	10,446	10,217	100	73	8,046	8,219	37.3
1979	10,613	10,401	89	65	8,146	8,300	37.2
1980	11,040	10,839	81	101	8,050	8,232	36.5
1981	11,426	11,227	76	98	8,119	8,293	36.4
1982[5]	11,665	11,462	72	195	8,224	8,491	36.9
1983[5]	12,023	11,821	72	290	8,452	8,814	37.9

[1]Quantities produced and used, estimated by applying the percentage of milkfat and solids-not-fat in each product to the amount of products. [2]Fluid milk and cream and farm-churned butter. [3]Butter, cheese, evaporated milk, nonfat dry milk, and dry whole milk for welfare purposes, institutions, and the school lunch program. [4]Includes special milk program. [5]Preliminary.

Table 26.—Selected dairy products: Supply and utilization, 1976-83

Year and item	Supply				Utilization					Ending stocks
	Beginning stocks	Production	Imports	Total supply	Foreign		Military	Domestic		
					Exports	Shipments[1]		Civilian	Total use[2]	
	Million pounds									
Butter[3]										
1976	11	979	2	992	1	3	7	934	945	47
1977	47	1,086	2	1,135	2	2	5	941	950	185
1978	185	994	2	1,181	1	4	3	966	974	207
1979	207	985	2	1,194	1	4	6	1,005	1,016	178
1980	178	1,145	2	1,325	1	2	5	1,012	1,020	305
1981	305	1,228	3	1,536	119	2	4	982	1,107	429
1982	429	1,257	3	1,689	151	2	20	1,050	1,222	467
1983[4]	467	1,299	3	1,769	76	1	16	1,177	1,270	499
American cheese										
1976	308	2,054	14	2,376	6	16	4	1,938	1,964	412
1977	412	2,047	16	2,475	7	12	7	2,026	2,052	423
1978	423	2,079	18	2,520	4	12	9	2,116	2,141	379
1979	379	2,194	18	2,591	5	15	21	2,143	2,184	407
1980	407	2,381	18	2,806	5	13	14	2,183	2,215	591
1981	591	2,648	20	3,259	4	12	10	2,344	2,370	889
1982	889	2,759	18	3,666	22	15	13	2,645	2,684	982
1983[4]	982	2,932	22	3,936	29	31	16	2,698	2,774	1,162
Other cheese										
1976	61	1,267	193	1,521	3	10	3	1,438	1,454	67
1977	67	1,311	194	1,572	3	16	2	1,487	1,508	64
1978	64	1,441	224	1,729	6	22	2	1,621	1,651	78
1979	78	1,523	230	1,831	7	20	3	1,695	1,725	106
1980	106	1,603	213	1,922	8	20	2	1,793	1,823	99
1981	99	1,629	228	1,956	8	21	2	1,838	1,869	87
1982	87	1,782	252	2,121	26	22	2	1,988	2,038	83
1983[4]	83	1,887	265	2,235	10	24	2	2,094	2,130	105
Evaporated and condensed milk[5]										
1976	59	1,203	1	1,263	49	76	0	1,067	1,192	71
1977	71	1,039	1	1,111	34	62	1	939	1,036	75
1978	75	1,013	1	1,089	37	81	2	899	1,019	70
1979	70	1,035	0	1,105	42	73	2	911	1,028	77
1980	77	945	7/	1,022	43	70	3	854	970	52
1981	52	1,024	5	1,081	35	68	1	932	1,035	46
1982	46	1,028	7	1,081	19	84	1	927	1,029	52
1983[4]	52	965	11	1,028	6	73	1	903	980	48
Nonfat dry milk[6]										
1976	469	926	2	1,397	126	8	0	764	911	486
1977	486	1,107	2	1,595	156	8	0	729	917	678
1978	678	920	2	1,600	261	9	1	689	1,015	585
1979	585	909	2	1,496	185	12	1	739	1,011	485
1980	485	1,161	5	1,651	289	9	11	674	1,064	587
1981	587	1,314	3	1,904	344	5	10	605	1,014	890
1982	890	1,401	2	2,293	318	12	10	611	1,011	1,282
1983[4]	1,282	1,500	2	2,784	587	8	10	708	1,389	1,395

[1]To U.S. territories. [2]Includes that fed to animals or wasted where applicable. [3]Preliminary. [4]Includes butter-equivalent of butteroil. [5]Unskimmed includes both bulk and case goods. [6]Human food only. [7]Less than 50,000 pounds.

Table 27.—Production of selected manufactured dairy products

Item	Jan.-April 1983	Jan.-April 1984[1]	Change
	Million pounds		*Percent*
Butter	505.9	456.4	−9.8
Cheese			
American	980.6	950.3	−3.1
Other	601.8	634.4	+5.4
Creamed cottage	243.5	244.4	+0.4
Canned milk	221.6	201.9	−8.9
Dry whole milk	36.1	41.5	+15.0
Ice cream (gal)	265.0	271.2	+2.3
Milk equivalent[2]	28,067.0	26,910.0	−4.1
Nonfat dry milk	508.2	440.0	−13.4

[1]Preliminary. [2]Total reported manufactured products.

Total milk-equivalent commercial dairy stocks on May 1 were slightly smaller—130 million pounds—than a year earlier. Commercial stocks of butter were about 44 million pounds, up 19 percent, while American cheese stocks were 352 million, down 7 percent. However, this inventory does not include the holdings of the retail trade. It seems likely, given the very large gain in commercial disappearance, that the holdings in the retail pipeline have expanded this spring. Wholesale cold-storage holdings by the trade may expand some late this summer, because of greater sales and reduced raw milk supplies.

Net Removals Sharply Lower

USDA net removals under the milk price support program during January-May equaled to 6.4 billion pounds of milk, delivery basis, down 3.2 billion (34 percent) from a year earlier. With milk production down 2.5 to 4.5 percent and commercial disappearance up 2 to 4 percent, removals are expected to be below a year earlier for the rest of calendar 1984.

FOREIGN TRADE AND TRENDS

Imports and Exports Lower

Imports of dairy products during January-April 1984, on a milk-equivalent, fat-solids basis, were about 4 percent below a year earlier. Imports of quota-type cheese decreased 12 percent (product-weight basis), while non-quota types rose 26 percent. Quota cheese imports for January-April equaled about 26 percent of the total allowed for all of 1984. Imports of milk protein (casein) and milk sugar (lactose) were 26 and 67 percent above a year earlier, respectively.

Exports of U.S. dairy products during January-April were equal to about 735 million pounds of milk, down 23 percent from 1983. However, exports of nonfat dry milk have increased more than 31 percent. During the first quarter, dairy product shipments to territories of (milk-equivalent, fat-solids basis) were up 15 percent from a year earlier.

European Community Adopts Production Quotas

To reduce surplus production, the European Community (EC) on April 2 started a delivery quota system for milk. The program, scheduled to last 5 years, sets the quota at calendar 1981 levels plus 1 percent, with some adjustments for certain member countries. The supply control measures will be enforced by a levy on over-quota deliveries—75 percent of the target price for individual quotas or 100 percent for collective quotas (dairies). This program includes milk sold directly by farmers to consumers.

For the 1984/85 marketing year, the EC has also taken action to reduce milk production by freezing the target price for milk and increasing the co-responsibility level. On the consumption side, it has adjusted the support price for butter and nonfat dry milk to stimulate butter use. These program changes, which will be felt only

Table 28.—Wisconsin out-of-State milk shipments

Month	1982[1]		1983[1]		1984[1]	
	Loads	Volume	Loads[2]	Volume[3]	Loads	Volume[3]
	Number	*Thousand pounds*	*Number*	*Thousand pounds*	*Number*	*Thousand pounds*
January	57	2,679	13	611	44	2,156
February	31	1,457	7	329	42	2,058
March	20	940	1	47	64	3,136
April	7	329	1	47	75	3,675
May	15	705	9	423	35	1,715
June	22	1,034	3	141		
July	25	1,175	28	1,372		
August	23	1,081	62	3,038		
September	68	3,196	258	12,642		
October	20	940	57	2,793		
November	50	2,350	54	2,646		
December	14	658	50	2,450		
Total	352	16,544	543	26,539		

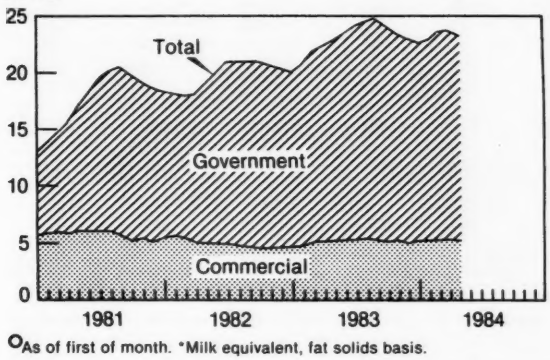
[1]Changes in marketing practices in the Chicago market and adjacent Federal order markets may affect the comparability of these data. [2]Includes out-of-State skim milk shipments. [3]Average weight of load increased from 47,000 pounds to 49,000 after July 1, 1983.

Table 29.—U.S. dairy product ending stocks, annual and quarters, 1976-84

	Commercial						Government				
	Butter	American cheese	Other cheese	Canned milk	Nonfat dry milk	Milk equivalent[1]	Butter[2]	American cheese[3]	Canned milk	Nonfat dry milk	Milk equivalent[1]
	Million pounds										
1976	28.0	409.8	67.1	70.6	98.8	5,299	19.1	1.6	0.1	386.6	410
1977	34.2	361.5	64.0	75.2	60.7	4,916	150.7	60.5	(5)	617.2	3,710
1978	15.2	349.1	78.4	70.3	40.1	4,475	191.8	29.7	(5)	545.0	4,254
1979	25.2	403.7	105.6	76.7	92.6	5,419	152.6	2.8	0.3	392.7	3,180
1980-1st	41.9	384.6	107.4	76.2	83.7	5,600	175.3	5.6	0.3	361.6	3,676
2nd	46.5	433.3	110.6	115.8	137.4	6,283	249.4	59.2	0.4	411.0	5,737
3rd	43.7	422.7	112.4	119.6	76.2	6,116	259.3	143.0	0.7	523.2	6,768
4th	36.5	422.8	99.3	51.8	85.0	5,752	268.2	168.6	1.2	501.7	7,207
1981-1st	53.0	410.3	89.7	39.5	96.5	5,868	354.4	237.1	0.9	536.1	9,490
2nd	40.9	425.4	100.8	77.0	116.3	5,921	466.6	402.5	0.6	616.8	13,613
3rd	31.9	374.5	95.7	101.1	87.2	5,255	457.6	511.9	1.0	721.8	14,558
4th	47.3	373.8	86.6	46.0	86.7	5,398	381.9	515.4	0.8	803.0	12,980
1982-1st	40.3	367.8	80.9	47.7	94.4	5,167	407.4	449.4	0.6	881.2	12,855
2nd	26.5	365.6	91.6	89.1	127.5	5,042	515.1	537.6	0.6	1,004.9	15,949
3rd	23.2	318.1	99.2	103.3	89.8	4,569	486.8	636.9	1.0	1,150.3	16,347
4th	28.1	334.7	82.8	51.9	93.3	4,603	438.7	646.8	1.0	1,188.7	15,451
1983-1st	29.7	380.4	99.9	48.4	81.4	5,189	499.3	680.0	0.7	1,224.3	17,032
2nd	31.2	374.4	113.5	75.7	91.7	5,316	558.5	725.4	0.9	1,309.7	18,702
3nd	31.1	359.7	107.4	94.1	69.7	5,156	521.2	847.5	0.7	1,349.4	19,138
4th	35.8	368.2	104.9	46.7	74.6	5,234	463.5	793.3	1.0	1,320.3	17,412
1984-1st[4]	44.2	364.6	100.2	52.8	58.9	5,348	485.2	834.0	1.8	1,362.1	18,262
April[4]	44.0	351.5	100.9	60.7	67.0	5,233	487.1	799.2	1.7	1,375.6	17,959

[1]Includes butter equivalent of butteroil. [2]Includes processed cheese held by USDA. [3]Includes manufactured products for which current monthly series are available (excludes nonfat dry milk). [4]Preliminary. [5]Less than 50,000 pounds.

Dairy Product Stocks:○ Milk Equivalent Fat Solids Basis, Beginning Jan. 1



○As of first of month. *Milk equivalent, fat solids basis.

USDA

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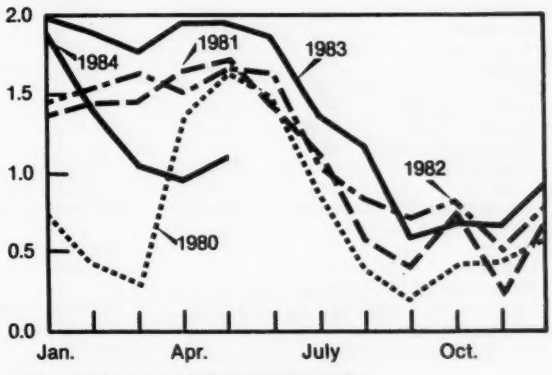
USDA Dairy Product Purchases*



*Net removals, milk equivalent, fat-solids basis.

Table 30.—USDA dairy purchases, with comparisons[1]

Item	January-May		
	1983	1984	Change
	Million pounds		*Percent*
Butter	281.3	177.9	−36.8
American cheese	379.0	268.8	−29.1
Nonfat dry milk	479.4	363.1	+24.3
Evaporated milk	9.5	10.3	+8.4
Milk-equivalent, fat-solids basis	9,574.7	6,359.3	−33.6

[1]Deliveries minus unrestricted sales.

Table 31.—Uncommitted CCC inventories, selected dates, 1980-84

Date	Butter	American cheese	Nonfat dry milk	Milk-equivalent, fat-solids basis
	Million pounds			*Billion pounds*
June 1, 1982	427.6	695.5	1,053.0	15.7
June 1, 1983	470.3	790.4	1,253.6	17.5
Jan. 1, 1984	341.7	838.3	1,372.3	15.3
Feb. 1, 1984	383.8	838.8	1,395.9	16.2
March 1, 1984	407.8	840.8	1,367.2	16.7
April 1, 1984	354.4	858.0	1,376.0	15.8
May 1, 1984	359.0	848.4	1,344.2	15.8
June 1, 1984	354.7	850.4	1,387.7	15.7

Table 32.—Dairy products: U.S. imports, quota and nonquota, total 1983 and January-April 1983-84[1]

Product	Calendar year quota	1983 imports	April			Cumulative, January-April		
			1983	1984	1984 as a % of 1983	1983	1984	1984 as a % of 1983
	Thousand pounds				*Percent*	*Thousand pounds*		*Percent*
Cheese, quota types								
American								
-cheddar	12,205.3	[4]12,746	436	263	60	2,562	2,111	82
-other	7,545.4	8,909	486	2,305	474	3,490	4,935	141
Italian								
-original loaves	12,374.4	12,121	1,364	715	52	3,859	4,451	115
-other	1,550.0	1,537	195	127	65	453	422	93
Edam and Gouda								
-natural	9,208.6	8,967	598	426	71	2,497	2,371	95
-processed	3,151.3	3,077	135	352	261	366	713	195
Blue mold	5,469.6	[4]5,603	667	481	72	2,406	1,540	64
Swiss								
-Emmenthaler	70,278.1	68,441	6,053	6,391	106	20,967	18,164	87
-Gruyere process	16,479.0	15,693	1,126	1,191	106	4,575	3,708	81
Other								
-over 0.5% fat	89,466.8	[4]90,417	6,956	5,807	83	26,154	21,252	81
-under 0.5% fat	12,621.1	12,145	867	837	97	3,832	2,610	68
Total	240,349.6	239,656	18,884	18,897	100	71,161	62,279	88
Cheese, nonquota types								
Other cow's milk cheeses[2]		18,399	1,398	2,024	145	5,474	7,166	131
Miscellaneous[3]		1,479	152	155	102	480	544	113
Pecorino		25,703	1,543	3,011	195	9,189	11,824	129
Roquefort		1,010	104	93	89	292	338	116
Total		46,591	3,197	5,283	165	15,436	19,872	129
Total cheese,								
Quota and nonquota	240,349.6	286,247	22,081	24,180	109	86,597	82,151	95
Other quota products								
Butter	707.0	[4]1,724	171	91	53	440	485	110
Butteroil	1,200.0	1,200	0	0	0	1,200	1,200	100
Butterfat mixtures	2,580.0	2,334	0	132	(5)	23	491	(5)
Ice cream	3,377.3	0	0	4	(5)	0	6	(5)
Frozen cream	12,540.0	[4]14,179	557	1,686	303	6,738	5,022	75
Nonfat dry milk	1,807.0	[4]2,399	0	77	(5)	410	609	149
Dried buttermilk and whey	496.0	400	0	0	0	0	6/	(5)
Evaporated milk	1,312.0	[4]7,181	551	272	49	[4]1,817	[4]2,676	147
Condensed milk	4,079.0	3,763	29	519	(5)	378	1,114	295
Chocolate crumb								
-regular	21,409.2	16,240	1,133	680	60	2,550	5,689	223
-lowfat	4,680.0	1,252	80	7	9	322	18	6
Animal feed with milk solids	16,300.0	15,060	1,374	816	59	2,097	3,151	150
Nonquota products								
Casein		159,527	11,294	12,882	114	49,717	62,772	126
Lactose		1,055	48	291	606	341	568	167
Milk-equivalent, fat-solids basis, total all products	2,234,270	[4]2,615,583	189,667	222,945	118	822,941	791,742	96

[1]Preliminary. [2]Primarily soft, ripened cheeses. [3]Gjetost, Bryndza, Gammelost and Noekkelost, and Goya. [4]Probable error in reported data. [5]More than 1,000. [6]Less than 1.

Source: U.S. Department of Commerce, Bureau of the Census.

partly in 1984, are expected to cut 1985 production levels and raise consumption.

*World Output Growth Expected to Slow**

World production of milk and dairy products is continuing to expand in 1984, but the growth is expected to be much less than in 1982 and 1983. The main reasons are U.S. and EC control measures. Cow's milk production for the 37 major producing countries is projected to increase only about 1 percent, despite expected gains in the USSR, Australia, and India. Milk production in 1983, at nearly 408 million metric tons (988 billion pounds), was up 3.7 percent from a year earlier.

Production of butter and butteroil may total near 7.1 million metric tons (15.6 billion pounds) in 1984, up modestly, in contrast with the sharp gain in 1983. The USSR, with a projected 8-percent increase, will account for most of the global rise. Prices for butter and butter oil have dropped since last fall because of continued weak demand and larger supplies.

Rising stocks of surplus butter in the EC will continue to limit price gains this year. U.S. surplus stocks, on the other hand, are expected to decline. Larger U.S. donations of butter and butteroil under the Section 416 pro-

* This section prepared by William Paddock, of the Dairy, Livestock, and Poultry Division, FAS, USDA, (202) 382-1347.

gram will help reduce CCC uncommitted inventories by year's end. After declining for many years, butter output was up sharply in Australia last year and will continue to expand this year. Their ending stocks (June 30, 1984) are likely to reflect this expansion.

Worldwide output of cheese is expected to remain near 1983's 9.0 million tons (19.7 billion pounds). The EC may produce slightly more this year because of some improvement in both domestic and foreign demand. However, this will likely be offset in the United States-cheese production is likely to decline as milk output drops. Consumption in the cheese-producing countries is expected to be up about 2 percent, and exports (excluding intra-EC trade) are projected to rise about 6 percent. World stocks by year's end may decline, reversing the trend of the past several years. The prospect of lower world stocks and some improvement in demand may strengthen cheese prices as the year progresses.

Like butter production, output of nonfat dry milk (NDM) is projected to increase only modestly, to 4.9 million metric tons (10.9 billion pounds). Use of NDM in the exporting countries, both for human and animal feed use, is likely to continue to rise. Exports may also show a substantial gain, as the United States will increase donations abroad and the EC, Australia, and New Zealand are likely to expand foreign sales. International prices for NDM appear to have stabilized since last fall, and they may continue near current levels over the next several months. World stocks by year's end may be somewhat higher.

For the 10 countries that manufacture most of the world's casein, production is expected to decline around 5 percent in 1984. Less skim milk is being made into casein in France and Ireland, and lower milk output in Poland, means less casein production. Traditionally, Poland produces casein from excess milk production during the spring season. Casein imports into the United States, the world's largest consumer, may be somewhat higher than in 1983, but likely below the record level of 1980.

Table 33.—U.S. dairy trade, 1982-84[1]

Year and quarters	Imports		Exports	Shipments[2]
	Cheese	Other		
	Million pounds			
1982				
1st	359	62	1,558	153
2nd	439	126	938	157
3rd	538	43	592	129
4th	792	117	846	163
Year[3]	2,128	349	3,935	602
1983				
1st	512	121	500	152
2nd	493	45	870	158
3rd	532	44	434	130
4th	736	132	623	136
Year[3]	2,273	343	2,427	577
1984				
1st	465	104	513	174

[1]Milk-equivalent, fat-solids basis. [2]To U.S. territories. [3]May not add because of rounding.

Table 34.—Imports, exports, and shipments of dairy products, 1976-83

Year	Imports		Exports		Shipments[2]	
	Quantity	Percent of production	Quantity	Percent of production	Quantity	Percent of production
	Million pounds	*Percent*	*Million pounds*	*Percent*	*Million pounds*	*Percent*
1976	1,943	1.6	502	.4	520	.4
1977	1,968	1.6	459	.4	527	.4
1978	2,310	1.9	368	.3	602	.5
1979	2,305	1.9	362	.3	620	.5
1980	2,109	1.6	370	.3	562	.4
1981	2,329	1.8	3,096	2.3	586	.4
1982	2,477	1.8	3,935	2.9	602	.4
1983[3]	2,616	1.9	2,427	1.7	577	.4

[1]Milk-equivalent, fat-solids basis. [2]To U.S. territories. [3]Preliminary.

Table 35.—Dairy product prices on international markets[1]

	Spring of 1983	Fall of 1983	Spring of 1984
	Dollars per metric ton		
Butter	$1,800-1,850	$1,500-1,700	$1,300-1,400
Butter oil	$1,900-2,100	$1,800-1,950	$1,400-1,700
Cheese	$1,600-1,700	$1,000-1,450	$1,000-1,450
NDM	$780-850	$650-730	$640-740

[1]F.O.B. North European and selected major world ports.

Household Characteristics, Frequency of Use, and the Demand for Dairy Products[1]

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and
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Abstract: Results from the USDA Nationwide Food Consumption Survey indicate that households with higher incomes spend less per person on fluid whole and canned milk for use at home than do lower income households, but they spend more on most other dairy products. For example, a 10-percent increase in income generates a 1.3-percent decline in expenditures at home for fresh whole milk, but a 3.5-percent increase for cream. Geographic location, race, and age of household members, as well as the season of the year, also affect spending for the 20 dairy products included in the analysis.

Keywords: Dairy expenditures, income, socioeconomic characteristics, 1977-78 Nationwide Food Consumption Survey (NFCS).

This study reports how household socioeconomic characteristics affect retail demand for dairy products. Characteristics include income, race, and age of residents, as well as geographic location. Seasons of the year also influence demand. The results may be used to help estimate demand and to identify segments of the population for which expenditures on dairy products are high or low relative to the national average.

Two Components of Demand

Changes in income and other demand factors cause changes in two components of the retail demand for dairy products: (1) the number of consumers using the product in a given time period, and (2) the average level of consumption by users of the product. The entry and exit of consumers from the market and the frequency of product use are just as important, if not more so, than the conventionally measured changes in the average level of product use.

Knowledge about the size of these two components of consumer demand have obvious implications for developing a product-marketing strategy and measuring potential for market growth or decline. For example, marketing strategies for seldom-used products may be more successful if directed toward population subsets known to be infrequent users. Conversely, marketing strategies for products used frequently by many people may be more successful if aimed at inducing these people to consume more.

Frequency of use becomes more important as a commodity is more narrowly defined. This is because fewer people use it and so its potential for extensive (as opposed to intensive) market expansion is greater. Also, as product categories narrow, substitute products become more numerous, increasing the possibility of product switching.

A statistical procedure, tobit analysis, and data from the 1977-78 USDA Nationwide Food Consumption Survey (NFCS) was used to quantify the relationship between the two demand components—number of consumers and average consumption per user. Also analyzed was the effect of household income, race, age composition, region of residence, and season of the year. Because survey data cannot distinguish entry or exit in product markets from frequency of product use, it is usually unknown whether a household ever uses the item(s) in question. We will use the term frequency of use to denote both phenomena, although they are distinctly different.

Income

The analysis revealed that frequency of use accounted for much of the weekly aggregate demand for some dairy products. For dairy products as a group, 21 percent of total demand response was found to be associated with the frequency of use phenomenon. As expected, however, the proportion of total response due to the frequency of product use was generally much larger for individual commodity groups within the dairy group. For fresh whole milk, the proportion of demand response attributed to frequency of use was 53 percent; for other fresh milk, 70; for processed milk, 76; for cream, 83; for frozen desserts, 65; for cheese, 49; and for butter, 76 (see table A).

Dairy products that responded most to income changes were other fresh milk (including low fat), cream, cottage cheese, other cheese, sour cream and dips, and butter. In all these cases, a 10-percent income increase raised dairy expenditures more than 2 percent. However, the income increase was associated with expenditure declines of about 1.3 percent for fresh whole milk and canned milk. These results indicate that the greater use of lower butterfat milk by higher income households cannot be attributed solely to health and nutrition concerns.

[1]Based on "Effects of Household Socioeconomic Features on Dairy Purchases," ERS, Technical Bulletin No. 1686, August 1983, by the same authors. [2]Agricultural economists, Economic Research Service, USDA, (202) 447-9200.

Table A.—Dairy expenditure response to a 10-percent increase in income[1]

Item	Expenditure response			Percentage due to market entry
	Total	Market entry	Expenditure level	
			Percent	
Dairy and related products[2]	*0.72	0.14	0.59	19
Dairy products[3]	*.77	.16	.61	21
Fresh milk	−.09	−.03	−.06	34
Whole	*−1.34	−.71	−.63	53
Other	*2.64	1.85	.79	70
Processed milk	−.16	−.12	−.04	76
Canned	*−1.18	−.98	−.21	82
Dry	.75	.61	.14	81
Cream	*3.50	2.91	.60	83
Cream substitutes	*1.89	1.57	.32	83
Frozen desserts	*1.68	1.09	.59	65
Cheese	*1.71	.84	.87	49
Natural American and cheddar	*1.05	.75	.30	71
Processed	*1.26	.72	.54	68
Other	*4.25	3.23	1.02	76
Cottage cheese	*2.40	1.75	.65	73
Sour cream and dips	*4.51	3.97	.54	83
Table fat	*.44	.17	.27	38
Butter	*2.41	1.83	.58	76
Margarine	−.22	−.10	−.12	46

[1]Factors other than income are held constant at their sample means. [2]Includes margarine and cream substitutes. [3]Excludes margarine and cream substitutes.

* Significant at the 0.10 level. Statistical tests of significance are not performed for the individual components of income response.

The results have several important implications for developing marketing strategies and assessing market potential as real consumer income increases. First, marketing strategies for aggregate dairy products may be focused on those consumers already using the products, since the percentage of the total expenditure response that is due to frequency of use is relatively low.

Market expansion opportunities appear to be abundant for cheese products. For individual cheese products, marketing efforts might be more successful if they were directed toward nonusers or infrequent users. For example, marketing efforts could be aimed at educating the consumer on alternative uses of cheese.

As real consumer income increases, the demand for butter should rise modestly. Since butter sales show a large frequency of use component, marketing strategies might try to induce consumers to use butter more frequently.

Region

Per person expenditures on all dairy products combined are highest in the Northeast and lowest in the South, but this pattern does not hold for all individual dairy products (see table B). For example, other fresh milk expenditures are higher in all other regions than in the Northeast. Natural American and cheddar cheese expenditures are higher in regions outside the Northeast, but Northeasterners appear to spend more for processed and other cheeses. Northeastern residents also spend more for butter than do residents of other regions.

There appears to be slightly more homogeneity among dairy expenditures in the North Central, South, and West regions than across the entire country. Some of the differences in regional expenditure patterns may be caused by price differences, historic dairy consumption patterns, or regional tastes and preferences.

Bureau of the Census projections suggest that the proportion of the population living in the Southern and Western regions will increase between 1980 and 1990. The proportion of the population living in the Northeastern and North Central regions is expected to continue to decline. Holding income and other factors constant, these regional population changes could contribute to a slight decline in average per person expenditures for total dairy products over the next decade.

Conversely, the population shift may boost expenditures for some individual items, including low-fat fresh milk and natural American and cheddar cheese. These growth rates assume, of course, that the new residents in a region will take on the consumption patterns of the current population.

Table B.—Weekly per person dairy expenditures by region[1]

Item	Region			
	Northeast (base)	Percentage change from base		
		North Central	South	West
	Dollars		*Percent*	
Dairy and related products[2]	2.412	*−11.2	*−14.0	*−4.5
Dairy products[3]	2.263	*−13.1	*−15.4	*−5.1
Fresh milk	.966	*−5.7	.6	*−4.2
Whole	.783	*−37.6	*−6.1	*−32.9
Other	.164	*128.7	*40.1	*117.0
Processed milk	.123	*−11.0	*16.9	*34.5
Canned	.039	9.3	*121.5	*91.8
Dry	.074	*−20.6	*−33.4	*16.0
Cream	.032	*20.5	*−48.8	14.2
Cream substitutes	.018	*14.8	*−24.4	−17.0
Frozen desserts	.260	*−11.8	*−16.4	*−15.7
Cheese	.581	*−15.1	*−24.3	−1.5
Natural American and cheddar	.132	*26.0	*24.4	*98.4
Processed	.196	*−8.8	*−10.7	*−34.5
Other	.247	*−45.5	*−73.0	*−34.1
Cottage cheese	.190	−4.9	*−52.5	6.7
Sour cream and dips	.025	−3.0	*−43.8	7.4
Table fat	.278	*−10.9	*−22.7	*−16.6
Butter	.144	*−49.6	*−69.8	*−50.9
Margarine	.134	*22.5	*16.5	*13.6

[1]Factors other than region are held constant at their sample means. [2]Includes margarine and cream substitutes. [3]Excludes margarine and cream substitutes.

* Significant difference at the 0.10 level.

Season

Weekly per person dairy expenditures are higher in the summer, fall, and winter than in the spring (see table C). This is true of total dairy expenditures and of many of dairy product groups. For example, processed-milk expenditures are highest in the fall and winter, perhaps becuase of holiday food preparation and baking. However, per person frozen-dessert expenditures are lowest in the fall and winter.

Race

For almost all dairy items, both the black and nonwhite-nonblack racial groups have lower weekly per person expenditures than do whites (see table D). Blacks spend almost 25 percent less per person for total dairy products, 28 percent less for fresh milk, 25 percent less for cheese, and 13 percent less for frozen desserts. However, blacks spend approximately 86 percent more than whites for canned milk. Nonwhite-nonblacks spend about 39 percent more for fresh whole milk than whites do, but almost 80 percent less for other types of fresh milk. Overall, however, nonwhite-nonblacks spend approximately the same as whites on fresh milk.

In 1950, blacks comprised about 10 percent of the population and nonblacks about 90 percent. Between 1950 and 1978, changes in the racial mix of the population lowered per capita expenditures for fresh milk, cream, frozen desserts, cheeses, and sour cream and dips. 3/ By contrast, the racial mix boosted canned milk and butter expenditures. Today, blacks make up about 12 percent of the population and nonblacks about 88. This trend is expected to continue; the Bureau of the Census projects that blacks will comprise about 12.2 percent of the population in 1990. However, these relatively small changes in the racial mix should not significantly influence the demand for most dairy products.

Age Composition

Households with children age 2 and under tend to spend more per person on total dairy products than do similar households without young children (see table E). This is due almost exclusively to higher expenditures for fresh and processed milk (including infant formula). However, households with infants spend significantly less per person for frozen desserts, cheese, and table fats.

Households with teenagers also spend more per person on total dairy products than do similar households without teens. Teen households spend considerably more for fresh milk, frozen desserts, processed cheese, and sour cream and dips.

[3]Larry Salathe, "Demographics and Food Consumption," Economic Research Service, *National Food Review*, fall 1979.

Table C.—Weekly per person dairy expenditures by season[1]

Item	Season			
	Spring (base)	Percentage change from base		
		Summer	Fall	Winter
	Dollars		*Percent*	
Dairy and related products[2]	2.100	*7.2	*7.3	*6.5
Dairy products[3]	1.956	*6.7	*6.6	*5.8
Fresh milk	.893	*5.3	*8.2	*9.6
Whole	.577	*7.5	*13.9	*14.2
Other	.275	*.3	*−3.0	−.8
Processed milk	.128	−8.3	*17.7	*13.9
Canned	.056	6.2	*19.4	1.3
Dry	.059	*−20.5	*19.2	*35.2
Cream	.028	−7.4	17.5	−2.0
Cream substitutes	.018	*−26.7	−8.4	2.0
Frozen desserts	.243	*9.6	*−11.4	*−17.4
Cheese	.482	*5.4	*8.8	*8.4
Natural American and cheddar	.169	3.1	8.5	.5
Processed	.153	*8.6	*9.4	*19.3
Other	.130	−4.9	5.1	−1.3
Cottage cheese	.159	3.2	−9.8	−7.1
Sour cream and dips	.020	1.9	4.6	9.4
Table fat	.212	*12.9	*19.8	*17.1
Butter	.066	3.6	*15.4	*12.1
Margarine	.135	*14.7	*18.5	*16.6

[1]Factors other than season are held constant at their sample means. [2]Includes margarine and cream substitutes. [3]Excludes margarine and cream substitutes.

* Significant difference at the 0.10 level.

Table D.—Weekly per person dairy expenditures by race[1]

Item	Race		
	White (base)	Percentage change from base	
		Black	Nonwhite-nonblack
	Dollars		*Percent*
Dairy and related products[2]	2.275	*−24.8	*−6.8
Dairy products[3]	2.110	*−24.8	*−6.4
Fresh milk	.975	*−28.7	.7
Whole	.632	*−12.4	*39.1
Other	.300	*−48.5	*−79.7
Processed milk	.136	*8.4	*−39.1
Canned	.056	*86.5	3.7
Dry	.071	*−56.0	*−72.0
Cream	.030	*−35.4	*−57.9
Cream substitutes	.019	*−64.3	*−57.9
Frozen desserts	.233	*−12.7	*−22.3
Cheese	.526	*−25.0	−9.0
Natural American and cheddar	.181	*−11.2	*−20.5
Processed	.173	*−27.1	−6.6
Other	.144	*−63.0	*−20.9
Cottage cheese	.170	*−67.8	*−20.1
Sour cream and dips	.025	*−78.8	*−45.5
Table fat	.243	*−11.5	*−11.1
Butter	.071	2.1	−16.3
Margarine	.156	*−20.2	*−10.2

[1]Factors other than race are held constant at their sample means. [2]Includes margarine and cream substitutes. [3]Excludes margarine and cream substitutes.

* Significant difference at the 0.10 level.

Table E.—Weekly per person dairy expenditures by age group[1]

Item	Age (years)					
	40-64 (base)	0-2	3-12	13-19	20-39	65 and over
	Dollars	*Percentage change from base*				
Dairy and related products[2]	2.194	*15.2	−5.8	*17.1	−2.6	0.1
Dairy products[3]	2.006	*19.2	−3.6	*20.6	.4	−1.8
Fresh milk	.880	*35.7	*20.5	*46.5	−3.7	.3
Whole	.599	5.6	*22.8	*45.6	−4.9	−5.2
Other	.271	*39.8	*−21.6	10.4	−5.5	*18.7
Processed milk	.132	*614.4	*−31.8	11.5	*−20.7	*19.6
Canned	.064	*1,522.2	*−49.0	−6.3	*−43.9	*37.2
Dry	.061	45.2	−8.7	35.4	−2.1	11.3
Cream	.032	−37.1	−19.1	−22.2	*−38.7	*62.3
Cream substitutes	.021	−30.7	−20.6	−25.7	*−57.2	*56.6
Frozen desserts	.232	*−36.4	16.7	*23.1	*−19.5	*14.6
Cheese	.494	*−28.9	−8.5	11.2	*22.9	*−14.1
Natural American and cheddar	.179	−19.8	−18.5	19.7	6.3	−7.7
Processed	.161	16.4	*30.1	*23.5	8.1	*−26.5
Other	.110	*−45.4	−2.6	30.1	*65.0	2.6
Cottage cheese	.183	*−76.2	*−30.2	*−19.7	*−21.8	2.2
Sour cream and dips	.018	−33.5	39.7	*80.4	*35.4	−7.5
Table fat	.268	*−39.8	*−34.4	*−21.3	*−13.3	*10.5
Butter	.076	*−54.8	*−44.7	−19.2	*22.2	−2.5
Margarine	.175	*−24.6	*−23.9	*−19.0	*−31.1	*17.5

[1]Factors other than age are held constant at their sample means. [2]Includes margarine and cream substitutes. [3]Excludes margarine and cream substitutes.

* Significant difference at the 0.10 level.

Households composed of elderly persons spend more per person on other milk, processed milk, cream, and margarine than do similar households without elderly members. The elderly, however, spend less on cheese and processed cheese.

The age mix of the U.S. population changed markedly during the last three decades. During the 1950's the proportion of children in the population increased dramatically because of the post-World War II baby boom. This change helped mitigate the overall decline experienced in per person consumption of fluid milk. However, the birth rate slowed during the 1960's and 1970's, reducing the number of preteenage children. But the maturing of post-World War II babies increased the number of teenagers and young adults. The number of senior citizens also increased faster than the total population. These changes contributed to the decline in per capita consumption of fluid milk in the 1960's and 1970's.

The largest forseeable changes in the per capita demand for dairy products will probably to be caused by the aging of the population. Bureau of the Census projections indicate that dramatic changes are likely to occur in the age distribution of the population during the remainder of this century. The proportion of the population under 40 is expected to drop from about 64 percent in 1980 to 56 percent in 2000. This growth in the over-40 population and the decline in the proportion of teens and preteens may significantly reduce per capita fresh milk expenditures by the year 2000. These changes may also decrease total dairy expenditures per person. But, they may have a positive effect on expenditures for cream, cottage cheese, and table fat, especially butter.

Table F.—Projections of U.S. population's age distribution

Age group	Proportion of total population		
	1980	1990	2000
	Percent		
Under 5	7.2	7.7	6.6
5-14	15.5	14.2	14.3
15-19	9.3	6.8	7.1
20-39	32.0	32.8	28.0
40-64	24.9	24.9	31.0
Over 64	11.3	12.7	13.1

Source Bureau of the Census.

Conclusions

For dairy products, the results imply that strategies designed to increase demand for all dairy products may be more successful if they aim at enticing known users to consume more, rather than if they try to attract new users. This is because many people already use dairy products. However, some dairy items are used infrequently or not at all by many consumers. Marketing strategies for these products may be more successful if

directed toward expanding both the number of consumers and the frequency of consumption.

Individual products within the dairy group that appear to have the most potential for extensive market expansion are fresh milk (other than whole), cream, cheese (including cottage), sour cream and dips, and butter. These products are relatively more sensitive to increases in consumer income. As incomes increase and the population ages, we expect the proportion of whole milk sales in the fresh fluid milk market to decline and lowfat milk sales to increase.

If current population projections for the next decade materialize, fresh milk consumption will likely fall substantially, but the drops may be offset somewhat by an increased demand for some types of cheese, cream, and butter.

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